



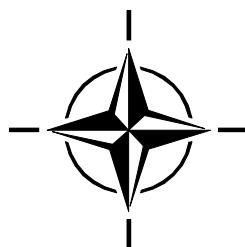
RTO MEETING PROCEEDINGS

MP-HFM-172

# **Social Sciences Support to Military Personnel Engaged in Counter-Insurgency and Counter-Terrorism Operations**

(Soutien en sciences sociales apporté au personnel militaire  
engagé dans des opérations de contre-insurrection  
et de contre-terrorisme)

Final Report of the NATO-Russia Human Factors  
and Medicine Research Task Group 172.



Published November 2011





---

RTO MEETING PROCEEDINGS

MP-HFM-172

# **Social Sciences Support to Military Personnel Engaged in Counter-Insurgency and Counter-Terrorism Operations**

(Soutien en sciences sociales apporté au personnel militaire  
engagé dans des opérations de contre-insurrection  
et de contre-terrorisme)

Final Report of the NATO-Russia Human Factors  
and Medicine Research Task Group 172.

Prepared for:

Anne Speckhard, Ph.D., Valery Krasnov, M.D. and  
Sergey Aleksanin, M.D., Ph.D.

NATO Research and Technology Agency by Laurie Fenstermacher, M.S.  
Special Rapporteur for the Meeting

Edited by Laurie Fenstermacher, M.S. and Anne Speckhard, Ph.D.

Special thanks to research intern Beatrice Jacuch, M.S. for formatting the  
report and Sean London, B.A. for assistance in the final proofing.

---

---

# The Research and Technology Organisation (RTO) of NATO

RTO is the single focus in NATO for Defence Research and Technology activities. Its mission is to conduct and promote co-operative research and information exchange. The objective is to support the development and effective use of national defence research and technology and to meet the military needs of the Alliance, to maintain a technological lead, and to provide advice to NATO and national decision makers. The RTO performs its mission with the support of an extensive network of national experts. It also ensures effective co-ordination with other NATO bodies involved in R&T activities.

RTO reports both to the Military Committee of NATO and to the Conference of National Armament Directors. It comprises a Research and Technology Board (RTB) as the highest level of national representation and the Research and Technology Agency (RTA), a dedicated staff with its headquarters in Neuilly, near Paris, France. In order to facilitate contacts with the military users and other NATO activities, a small part of the RTA staff is located in NATO Headquarters in Brussels. The Brussels staff also co-ordinates RTO's co-operation with nations in Middle and Eastern Europe, to which RTO attaches particular importance especially as working together in the field of research is one of the more promising areas of co-operation.

The total spectrum of R&T activities is covered by the following 7 bodies:

- AVT Applied Vehicle Technology Panel
- HFM Human Factors and Medicine Panel
- IST Information Systems Technology Panel
- NMSG NATO Modelling and Simulation Group
- SAS System Analysis and Studies Panel
- SCI Systems Concepts and Integration Panel
- SET Sensors and Electronics Technology Panel

These bodies are made up of national representatives as well as generally recognised 'world class' scientists. They also provide a communication link to military users and other NATO bodies. RTO's scientific and technological work is carried out by Technical Teams, created for specific activities and with a specific duration. Such Technical Teams can organise workshops, symposia, field trials, lecture series and training courses. An important function of these Technical Teams is to ensure the continuity of the expert networks.

RTO builds upon earlier co-operation in defence research and technology as set-up under the Advisory Group for Aerospace Research and Development (AGARD) and the Defence Research Group (DRG). AGARD and the DRG share common roots in that they were both established at the initiative of Dr Theodore von Kármán, a leading aerospace scientist, who early on recognised the importance of scientific support for the Allied Armed Forces. RTO is capitalising on these common roots in order to provide the Alliance and the NATO nations with a strong scientific and technological basis that will guarantee a solid base for the future.

The content of this publication has been reproduced  
directly from material supplied by RTO or the authors.

Published November 2011

Copyright © RTO/NATO 2011  
All Rights Reserved

---

ISBN 978-92-837-0151-4

Single copies of this publication or of a part of it may be made for individual use only. The approval of the RTA Information Management Systems Branch is required for more than one copy to be made or an extract included in another publication. Requests to do so should be sent to the address on the back cover.

# Table of Contents

	Page
<b>Glossary of Terms</b>	<b>v</b>
<b>Workshop Participants</b>	<b>vi</b>
<b>Executive Summary and Synthèse</b>	<b>ES-1</b>
<b>Background</b>	<b>B-1</b>
<b>Chapter 1 – Introductions and Welcome</b>	<b>1-1</b>
1.1    Welcome	1-3
<b>Chapter 2 – Lessons from Afghanistan: Psycho-Social Preparation for Deployment, Support During Deployment and Post-Deployment Issues (PTSD and Rehabilitation)</b>	<b>2-1</b>
2.1    Discussion	2-2
<b>Chapter 3 – Resilience in Veterans: Psychological Problems of Combatants Transitioning Back into Society</b>	<b>3-1</b>
3.1    Discussion	3-2
<b>Chapter 4 – Prevention of Suicide and Stress Disorders in Emergency Situations</b>	<b>4-1</b>
4.1    Discussion	4-2
<b>Chapter 5 – Building Resilience in Civilian Populations</b>	<b>5-1</b>
5.1    Discussion	5-3
<b>Chapter 6 – Why Cultural Awareness is Vital to Counter-Insurgency (COIN) Campaigns</b>	<b>6-1</b>
6.1    Discussion	6-3
<b>Chapter 7 – Empirical Study of the Terrorist Threat: Lessons for Resilience from Afghanistan</b>	<b>7-1</b>
7.1    Discussion	7-2
<b>Chapter 8 – Activities of the NATO Research and Technology Agency</b>	<b>8-1</b>
8.1    Discussion	8-2

---

<b>Chapter 9 – Battlemind Resilience Training Overview</b>	<b>9-1</b>
9.1 Discussion	9-2
<b>Chapter 10 – Deradicalization/Disengagement Strategies: Challenging Terrorist Ideologies and Militant Jihadis</b>	<b>10-1</b>
10.1 Discussion	10-3
<b>Chapter 11 – Resilience and Radicalization</b>	<b>11-1</b>
11.1 Discussion	11-3
<b>Chapter 12 – Resilience in Military and Diplomatic Personnel Engaged in Counter-Insurgency and Counter-Terrorism Operations</b>	<b>12-1</b>
12.1 Discussion	12-2
<b>Chapter 13 – Discussion on the Future</b>	<b>13-1</b>
<b>Annex A – Agenda</b>	<b>A-1</b>

# Glossary of Terms

<b>ANAM</b>	Automated Neuropsychological Assessment Models
<b>AQ</b>	Al Qaeda
<b>ARW</b>	Advanced Research Workshop
<b>BM</b>	Battlemind
<b>CBR</b>	Chemical, Biological and Radiological
<b>COIN</b>	Counter Insurgency
<b>COMEDS</b>	Committee of the Chiefs of Military Medical Sciences in NATO
<b>CT</b>	Counter Terrorism
<b>DoD</b>	Department of Defense
<b>EMERCOM</b>	All-Russian Center of Emergency and Radiation Medicine
<b>GHQ</b>	General Health Questionnaire
<b>GMC</b>	General Medical Council
<b>HFM</b>	Human Factors and Medicine Panel
<b>IRA</b>	Irish Republican Army
<b>JI</b>	Jemaah Islamiya
<b>KPI</b>	Key Performance Indicators Analysis and Visualization Software
<b>MOU</b>	Memorandum Of Understanding
<b>M&amp;S</b>	Modeling and Simulation
<b>MS</b>	Mississippi Scale (measures PTSD)
<b>NATO</b>	North Atlantic Treaty Organisation
<b>NGO</b>	Non-Governmental Organization
<b>NWC</b>	Naval War College
<b>PCL</b>	Psychopathy Checklist
<b>PHQ</b>	Patient Health Questionnaire
<b>PTSD</b>	Post Traumatic Stress Disorder
<b>QRT</b>	Quick Reaction Teams
<b>QTT</b>	Quality Total Index
<b>R&amp;D</b>	Research and Development
<b>RTA</b>	Research and Technology Agency
<b>RTG</b>	Research and Technology Group
<b>SACS</b>	Scale for Assessing Coping Skills
<b>SPSC</b>	Science for Peace and Security Committee
<b>TRADOC</b>	US Army Training and Doctrine Command
<b>WHO</b>	World Health Organization

## Workshop Participants

Aleksanin, Sergey	EMERCOM Russia, St Petersburg (RUS)
Danielsen, Tone	Norwegian Defence Research Establishment (FFI) (NOR)
Fedortseva, Regina	EMERCOM Russia, St Petersburg (RUS)
Fenstermacher, Laurie	Air Force Research Lab (USA)
Jongman, Albert	Netherlands Ministry of Defence (NLD)
Krasnov, Valery	Institute of Psychiatry, Moscow (RUS)
McGurk, Dennis	US Army Research Unit in Europe (USA)
Mutatoff, Radostin	NATO, German Liaison (DEU)
Rybnikov, Victor	EMERCOM Russia, St Petersburg (RUS)
Shamrey, Vladislav	St Petersburg Military Medical Academy (RUS)
Speckhard, Anne	Georgetown University Medical School (USA)
Tarabrina, Nadezhda	Russian Academy of Sciences (RUS)
Varus, Vasily	Research Institute of Military Medicine of Ukraine Armed Forces (UKR)
Verleye, Gino	University of Ghent (BEL)
Wientjes, Cornelius	NATO Research and Technology Organisation

---

# **Social Sciences Support to Military Personnel Engaged in Counter-Insurgency and Counter-Terrorism Operations**

**(RTO-MP-HFM-172)**

## **Executive Summary**

A joint NATO-Russia and Human Factors and Medicine Panel (NATO RTO HFM-172) Workshop entitled, “Social Sciences Support to Military Personnel Engaged in Counter-Insurgency and Counter-Terrorism Operations” was held in St Petersburg, Russia, June 18-20, 2009. The purpose of this Workshop was to engage the NATO-Russia relationship once again to bring together experts from NATO Nations and from Russia to discuss participants’ understanding of how social scientists can support militaries engaged in counter-insurgency and counter-terrorism operations. It attempted to define the problems related to such operations, share results from related research and identify opportunities for future collaboration. The meeting also served to establish new contacts and strengthen existing interactions between NATO (including Belgium, Germany, Netherlands, Norway and the United States,) members and their Russian and Ukrainian stakeholders including experts and practitioners, analysts, and social scientists.

Top researchers in the field were present at the Workshop including government and NATO officials as well as some of the leading scholars in the field who lead counter-terrorism and security initiatives. Talks were given on studies assessing resilience and the incidence of Post Traumatic Stress Disorder (with studies focused on Afghanistan and Chechnya), the importance of understanding culture in counter-terrorism operations, training programs to foster resilience, de-radicalization programs and resilience research.

There was strong interest in broadening the scope of the NATO-Russia interaction on counter-terrorism to include civil as well as military operations (e.g., emergencies/first responders) as well as in helping to define a follow-up activity to the Human Factors and Medicine Panel Research Task Group (RTG) focused on terrorism, especially radicalization, de-radicalization and resilience, HFM-140.

# **Soutien en sciences sociales apporté au personnel militaire engagé dans des opérations de contre-insurrection et de contre-terrorisme**

**(RTO-MP-HFM-172)**

## **Synthèse**

Un atelier commun entre le Comité OTAN-Russie et la Commission sur les facteurs humains et la médecine (HFM-172 de la RTO de l'OTAN), intitulé « Soutien en sciences sociales apporté au personnel militaire engagé dans des opérations de contre-insurrection et de contre-terrorisme », s'est tenu à Saint-Pétersbourg, Russie, du 18 au 20 juin 2009. L'objectif de cet atelier était de mettre à profit, une nouvelle fois, la relation OTAN-Russie afin que des experts discutent de la façon dont les spécialistes en sciences sociales peuvent soutenir les militaires engagés dans des opérations de contre-insurrection et de contre-terrorisme. L'atelier a tenté de définir les problèmes liés à ce type d'opérations, de partager les résultats de recherches connexes et d'identifier les occasions de collaboration future. La réunion a également servi à établir de nouveaux contacts et à renforcer des interactions existantes entre les membres de l'OTAN (notamment l'Allemagne, la Belgique, la Norvège, les Pays-Bas et les Etats-Unis) et leurs interlocuteurs russes et ukrainiens, parmi lesquels des experts et des praticiens, des analystes et des spécialistes en sciences sociales.

D'éminents chercheurs de terrain étaient présents à l'atelier, en particulier des fonctionnaires nationaux et des représentants de l'OTAN, ainsi que quelques universitaires de premier rang qui mènent sur le terrain des initiatives de contre-terrorisme et de sécurité. Plusieurs allocutions ont présenté des études évaluant la résistance et l'incidence du syndrome de stress post-traumatique (certaines études étant centrées sur l'Afghanistan et la Tchétchénie) et l'importance de la compréhension de la culture dans les opérations de contre-terrorisme, des programmes de formation facilitant la résistance, des programmes de déradicalisation et de la recherche sur la résilience.

Les participants ont été très intéressés à l'idée d'étendre la portée de l'interaction OTAN-Russie en matière de contre-terrorisme pour y inclure des opérations civiles et militaires (par exemple, urgences/secouristes), ainsi que pour définir les activités ultérieures du groupe de recherche et de technologie (RTG) de la Commission sur les facteurs humains et la médecine, centré sur le terrorisme, en particulier la radicalisation, la déradicalisation et la résilience (groupe HFM-140).

## BACKGROUND

A joint NATO-Russia and Human Factors and Medicine Research Task Group 172 (HFM-172) Workshop entitled, “Social Sciences Support to Military Personnel Engaged in Counter-Insurgency and Counter-Terrorism Operations” was held in St. Petersburg, Russia, June 18-20, 2009. This Workshop was an extension of several previous activities. In 2002, a NATO-Russia Advanced Research Workshop was held at NATO Headquarters in Brussels, Belgium, on the Social and Psychological Consequences of Chemical, Biological and Radiological (CBR) Terrorism. The Workshop was co-chaired by Simon Wessely and Valery Krasnov. The Workshop focused on the psychological and societal impact of terrorist attacks and the assessment of factors that could exacerbate the impact of these attacks including: inadequate and exaggerated emergency responses, inaccurate information and false assurances, lack of public confidence and trust, uncertainty and controversy about exposure and risks, worry, fear, rumours and hoaxes. The result of the Workshop was a document entitled, “Guidelines on Risk Communication: How to Inform the Public, Improve Resilience and not Generate Panic”. The Workshop also resulted in the formation of a NATO-Russia Advisory Group, which convened from 2002 to 2005 and has since communicated in a virtual forum ([nrforum@listserv.cc.kuleuven.ac.be](mailto:nrforum@listserv.cc.kuleuven.ac.be)).

Subsequently, in 2004, an Advanced Research Workshop (ARW) was held in Lisbon, Portugal on “Suicide Terrorism, the Strategic Threat and Countermeasures”. This Workshop was co-chaired by Scott Atran and Ariel Merari and was attended by representatives from NATO Nations, Algeria, India, Israel, Japan, Pakistan, Russia and Sri Lanka. The Workshop assessed various aspects of suicide terrorism including: psychology, ideology and motivation, socio-economic, educational and demographic issues and organizational aspects such as recruitment and indoctrination. Counter-strategies were discussed including: pre-emption and penetration of organizations sponsoring suicide terrorism, protections and mitigation of the consequences of suicide attacks, and dealing with terrorism root causes and undermining popular support for suicide terrorism.

From 2003 to 2006, a NATO Research Task Group under the Human Factors and Medicine Panel, HFM-081, entitled “Stress and Psychological Support in Modern Military Operations”, met to discuss risk assessment, psychological preparation, screening, psychological support during and after deployment and psychological support for families. The group was chaired by Yves Cuvelier (Belgium) and had participating members from Austria, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, France, Germany, Lithuania, Luxembourg, Netherlands, Romania, Russia, Slovak Republic, Spain, Sweden, Turkey, the United Kingdom and the United States. This group produced a document providing guidelines on the organization of psychological support (including structure, procedures and roles of professionals). This report is available on the NATO website ([www.rto.nato.int](http://www.rto.nato.int)).

In 2007 in Moscow, a Human Factors and Medicine Panel (HFM-145) Symposium was held entitled “Non-Lethal Weapons in Counter-Terrorism: Human Effects”. This Symposium was co-chaired by Michael Murphy (USA) and N. Obeziyaev (Russia). It included participants from Canada, France, Germany, Italy, Russia, Switzerland, the United Kingdom and the United States. The Symposium focused on various issues related to non-lethal weapons including: psychological and behavioural effects, medical issues, effectiveness, safety margins and acceptance. Counter-terrorism scenarios were discussed, as well as decision support tools, doctrine, education and training and differences between NATO and Russian approaches to non-lethal weapons.

Finally, from 2006 to 2009, a NATO Research Task Group under the Human Factors and Medicine Panel, HFM-140, focused on the Psychosocial, Organizational and Cultural Aspects of Terrorism. This group was chaired by Anne Speckhard (USA) and included participants from Belgium, Bulgaria, Canada, Israel, Jordan, Netherlands, Norway, Russia, the United Kingdom and the United States. The group shared state-of-the-art knowledge, data and theories regarding motivations, ideologies, objectives, behaviour and operation

## BACKGROUND

---

of terrorists (including individual actors, leadership and networks), radicalization, recruitment, membership, disengagement, resilience to terrorism, social influence and perception management. Lessons learned were also shared, including understanding the impact of military posture and ways to minimize the negative impact of military operations, disengagement and deradicalization efforts, as well as the impact these factors might have on doctrine, training and education.

---

## Chapter 1 – INTRODUCTIONS AND WELCOME

*Dr. Cornelius J.E. Wientjes, NATO Research and Technology Agency Executive:* Dr. Wientjes is a human factors psychologist focused on the psycho-physiology of stress who works at NATO Headquarters. Before coming to work in NATO's Research organization in 1998, he was a researcher at TNO in the Netherlands. His primary goal is to foster as much cooperation as possible between NATO and Partner Nations. He emphasized that Russia is an important partner, as well as the Ukraine and other countries in the former Soviet Republic, Europe and Mediterranean region.

*Valery Krasnov, Director of the Psychiatric Institute in Moscow (belonging to the Ministry of Health Care):* Dr. Krasnov is a professor and chair of the Russian society of psychiatrists. He carries out clinical work, dealing with severe depression and stress disorders. He is very involved in collaborative activities with the US and other European countries, largely focused on Post Traumatic Stress Disorder (PTSD). These activities include various conferences focused on psychological or psychiatric problems. He is primarily interested in collaborative efforts to produce ways and means of preventing or minimizing such problems as PTSD within the framework of Russia-NATO cooperation. He also explores preventative measures in emergency situations. He noted that Russia has experience with Counter-Terrorism (CT) and that many of their medical psychologists have experience in supporting CT operations. The Psychiatric Institute Dr. Krasnov directs also aims to help civilians deal with troubled individuals and the psychological aftermath of inter-ethnic conflict. The Institute does not have data on veterans, but it does deal with individuals affected by the Chernobyl incident, including first responders and those tasked with making a tunnel under the reactor (the “liquidators”). Dr. Krasnov notes that treating veterans is challenging: they are not well understood by the public and don't get the attention they need. Thus, they confine themselves to a small circle of fellow veterans. These groups' dynamics often exacerbate the psychological challenges veterans are dealing with. Over time, such groups often become closed, and outsiders are not let in to help. Such veterans, whose codes of behaviour differ so widely from others', need wider acceptance and require help from outside factors.

*Sergey Aleksanin, M.D., Ph.D., Director of the Nikiforov Russian Centre of Emergency and Radiation Medicine:* Dr. Aleksanin has worked as a therapist and served as a military academy doctor for fifteen years. He has been to Afghanistan several times and evaluated the psychological states of combatants in the arena. The centre was created in response to the Chernobyl disaster. He has been at the Emergency Medicine Center for over fifteen years and has been involved in assessing those responsible for liquidating Chernobyl after the incident. The Center is intended to not only provide prompt medical care, but also to provide care for caregivers, who are also often deeply affected by what they witness.

*Viktor Yuryevich Rybnikov, M.D., Ph.D. (Medical Sciences and Psychological Sciences), Deputy Director for Research and Education, Nikiforov Russian Centre of Emergency and Radiation Medicine:* Dr. Rybnikov served in the Russian military's submarine services, first as an operator and then as a military doctor, in which capacity he provided support for submariners. He has extensive experience in working with combatants. His work focuses on extreme psycho-physiology and behaviour under stress and the rehabilitation of victims. He is the editor of a journal on psychotherapy and the psychology of terrorism.

*Nadezhda (Nadya) Tarabrina, Ph.D., Department Head, Institute of Psychology, Russian Academy of Sciences:* Dr. Tarabrina is a clinical psychologist and the director of a laboratory in Moscow, founded in the 1990s that focuses on PTSD research. She stated that psychologists are exceptionally suited to engage in the serious study of emergency situations. She talked about previous studies of post traumatic stress, including the first cross-cultural study (in conjunction with Harvard University) that compared psychological aspects of PTSD with veterans of the wars in Vietnam and Afghanistan. Her laboratory has adapted methodologies and developed psychometric approaches. Her group has conducted studies on individuals and groups involved in Chernobyl and terrorist threats and on vulnerable populations in other areas of the Russian Federation.

## INTRODUCTIONS AND WELCOME

---

*Valery Nichiporenko, M.D., Ph.D., Chief Psychiatrist, Department of Military Psychiatry, St Petersburg Military Academy:* Dr. Nichiporenko has been in the military for 32 years. His Ph.D. studies focused on suicide. In addition to supporting the military, he is also responsible for providing aid to civilians in emergency situations.

*Vasily Varus, M.D., Ph.D., Director of Research Institute of Military Medicine of the Ukrainian Armed Forces:* Dr. Varus is also a Colonel, with previous experience in the Institute of Air and Space Medicine, which traditionally focused on the care of pilots, both in combat and peacetime. He moved to the Ukraine and focuses on care, aid during deployment, disease prevention in servicemen and medical support to deployed armed forces. His thesis focused on rehabilitation and mitigation to servicemen in the pre-deployment stage.

*Major Dennis McGurk, Commander of the Army Research Unit in Europe:* Major McGurk focuses on the development and validation of mental health and resiliency training, specifically on a program called “Battlemind”, and has deployed twice to Iraq to do theatre-wide mental health assessments.

*Albert Jongman, Ph.D., Terrorism Analyst for the Ministry of Defence:* Dr. Jongman is a sociologist and worked at Leiden University for fifteen years where he focused on conflict monitoring and human rights violations. He currently serves the Ministry of Defence in counter-intelligence capacities. He develops threat assessments for the Netherlands, including threats to military forces deployed abroad. He asserted that, due to the nature of such campaigns, incidence of PTSD is higher in veterans of asymmetric warfare. Dr. Jongman has published a report on the rising tide of suicide terrorism in Afghanistan and Iraq. He states that Afghanistan is currently ranked second globally in the number of suicide terrorism incidents. As this behaviour is alien to Afghani culture, Dr. Jongman is interested in the roots of this behaviour.

*Tone Danielsen, Research Social Anthropologist for FFI, the Norwegian Defence Research Establishment:* Ms. Danielsen deals with psychologically sound, healthy people and is currently developing concepts and doctrines for the Ministry of Defence. She has done fieldwork in the Middle East. Her work currently focuses on fostering cooperation between civil and military agencies. She is interested in understanding why people engage in suicide terrorism and what we can do about it. She recently wrote a report entitled “common sense is not common”.

*Anne Speckhard, Ph.D., Clinical and Research Psychologist specializing in terrorism, radicalization, deradicalization and resilience of military and civilian populations:* Dr. Speckhard is an adjunct professor in the Psychiatry Department of the Medical School at Georgetown University in Washington, D.C. She has conducted over 300 interviews with extremists, terrorists, radicals, dispatchers of suicide terrorists, would-be suicide bombers, hostages of suicide terrorists and the close associates and family members of suicide terrorists in the Middle East, Russia and Europe. She has also worked extensively and conducted research with victims of terrorism. She designed and oversaw the psychological and Islamic portion of the detainee rehabilitation program in Iraq that was pilot tested and used for over 20,000 detainees held by US forces in Iraq. She also conducted research regarding the psycho-social resilience of civilian and military workers in high security threat environments (Iraq).

*Laurie Fenstermacher, the Adversary and Behaviour Modelling Lead for the Anticipate and Influence Behaviour Division of the Human Effectiveness Directorate of the Air Force Research Laboratory:* Ms. Fenstermacher works on various computational modelling research efforts focusing on unintended consequences and terrorism as well as discourse analysis research.

*Colonel Radostin Mutatoff, German Liaison to NATO:* Col. Mutatoff worked for ten years for the German military training civilians. His academic discipline is Business Management.

## 1.1 WELCOME

Dr. Valery Krasnov and Dr. Anne Speckhard, co-chairs of the joint NATO-Russia Human Factors and Medicine Panel (HFM-172) Workshop on “Social Sciences Support to Military Personnel Engaged in Counter-Insurgency and Counter-Terrorism Operations” welcomed the participants to the opening of the Workshop held at the Russian Centre of Emergency and Radiation Medicine in St. Petersburg, Russia.

Dr. Krasnov emphasized that the NATO-Russia group is interested in identifying, understanding and applying psycho-social approaches, both medical and non-medical, with the goal of counteracting terrorist acts and their social impacts. Dr. Krasnov emphasized that NATO members and Russia have been cooperating since 2002, jointly participating in workshops, seminars, and conferences. He commented that this Workshop was this group’s third meeting, with relatively consistent participation from members since the start, and stated that St Petersburg was an ideal location for the meeting and for making decisions regarding future collaboration, in that the Institute of Emergency Medicine has expertise in dealing with emergencies and the consequences of international events. He thanked Dr. Speckhard for organizing the NATO members’ participation in the Workshop. He complemented Alexei on his skills as an organizer and scholar of radiological and emergency medicine.

Dr. Anne Speckhard thanked the meeting’s hosts and presented its agenda. She expressed regret that some members (both current and future) such as Ariel Shalev from Israel who had taken ill, were unfortunately unable to attend due to last minute circumstances. She mentioned that Dr. Tayseer Elias Shawaf, a clinical psychologist that works with the military in Jordan, had created a counter-radicalization program for the military and might be joining the group in the future. Also, Dr. Christopher King of the US Human Terrain System Program had been planning to come but had problems with funding. She expressed hope that would be future meetings when these participants could be present.

Dr. Wientjes recalled that the collaboration between NATO members and Russia on counter-terrorism began when Russia’s then President Putin visited NATO in 2001 after 9/11. The decision made at that time, between NATO and Russia, was to work together as friends and partners to combat terrorism. Dr. Wientjes commented that experts from NATO and other Partner Nations had been organized together in 2002 in the first NATO-Russia Advanced Research Workshop which was held at NATO Headquarters in Brussels, Belgium on the Social and Psychological Consequences of Chemical, Biological and Radiological (CBR) Terrorism. The Workshop was co-chaired by Simon Wessely and Valery Krasnov. The Workshop was the first step in the NATO-Russia collaboration that has continued to the present.

Dr. Aleksanin welcomed the Workshop participants on behalf of the Institute of Emergency Medicine and the city of St Petersburg. He said that, although there have been many advisory panel meetings, the full group has only met twice previously, with the last meeting being four years ago. He expressed his hope that the meeting would be fruitful, lead to lasting collaboration and wished all success in the work.

---

## INTRODUCTIONS AND WELCOME

---



---

## **Chapter 2 – LESSONS FROM AFGHANISTAN: PSYCHO-SOCIAL PREPARATION FOR DEPLOYMENT, SUPPORT DURING DEPLOYMENT AND POST-DEPLOYMENT ISSUES (PTSD AND REHABILITATION)**

**Vasily Varus (UKR)**

Dr. Varus stated that his work, focusing on retention of high performing and/or experienced servicemen, especially pilots and Special Forces, began in the time of the Soviet Union in the mid 80's. In Ukraine, the Institute of Problems of Military Medicine (attached to the Ministry of Defence) deals with these subjects. His talk focused on the psycho-social aspects of the peacekeeping force in Afghanistan, the factors related to professional motivation and maintaining longevity in service and lessons learned in providing medical support to peacekeeping forces on maintaining longevity.

Dr. Varus stated that war is a technological process used by a state to destroy personnel, in service of local and global objectives. War is the sphere for which servicemen are trained; their mission is to carry out the commander's objectives (as defined by politicians), and to seize material and intellectual property. To perform well, a serviceman must be combat ready. There are four components of being combat ready: psychological health, physical health, combat skills and physical training.

The combat potential of the soldier goes up with professional experience; therefore the policy is to support/encourage servicemen's military longevity. This policy is implemented by the military components (focused on combat ability) and the government (focused on services). Retention of servicemen after the experience of combat is difficult. After armed conflict, 70% of participants have a negative outlook toward military service and choose to resign. A key factor in this decision is the environment – fears of losing health or life, losing prestige or social status. All servicemen, without exception, are exposed to psychological trauma in the course of armed conflict. The pathogenesis of trauma is in conflict, emotional stress and psychological disorders. All psychological disorders linked with conflict are part of various stages in a pathological process. Research has shown that professional motivation is negatively affected by two factors: the transition from the stress of war to peaceful life (concomitant with a change in attitudes and value priorities) and images of veterans, particularly those showing exaggerated anxiety, apathy, irritability or depression; painting them as mentally disturbed following active duty. The mass media emphasize those (apathetic or depressed) features of veterans and that has a negative effect on professional motivation.

Dr. Varus talked about the definition of three areas that ensure longevity/length of service and combat ability: maintenance of motivation increased training quality and psychological preparedness to participate in combat. Programs that organize and integrate medical support have been developed for each area. For motivation, maintenance and increased training quality, the focus is on the emotional factors of personality and scientific arrangement of training and professional activities with four objectives: selection of professional loads, introduction of methods of self control and building, emphasizing rest, increasing knowledge of social norms and psychological hygiene of family relations (including raising children) and maintenance of a high medical-psychological culture among commanders, servicemen and family members. The third area to ensure combat ability leverages, as in Mr Ushakov's work, on the cascade concept of training pilots. This concept is extendable to other mission areas such as peacekeeping. The first cascade is disqualification on the grounds of health. The other two areas focus on counteracting the first cascade. The Ukrainian Armed Forces try to retain experienced servicemen. During 2006 – 2011 Ukraine's military ran a development program targeting this objective. Brigade commanders are required to have experience in armed combat or peacekeeping operations in order to be promoted to that level. Thus, combat experience and ability can be viewed as positive social factors.

The medical support system has been changed for peacekeeping operations. Servicemen are first selected based on medical and psychological tests. Thorough medical checkups are conducted during preparation for deployment, during deployment, and post-deployment. During these thorough checkups, psychologists, biochemists, and psychiatrists evaluate the servicemen, with the goal of maintaining longevity. All results from this testing are documented in the servicemen's records. The medical support focuses on two goals: prevention and treatment/medical support. Two areas of medical support are important: prevention measures and medical support (focused on epidemiological support, treatment of infections – especially important for peacekeepers deployed to Africa). Missions have been cut from one year to six months; reducing disease (e.g., reduced cases of malaria by 2 or 3 times). The prevention system has shifted its focus to preventive rehabilitation for healthy subjects who exhibit symptoms of a functional disorder (e.g., prescription of mission rest). There are medical assistance/rehabilitation programs that treat peacekeepers in two hospitals, including one in Sudok. These programs track duration of and types of breaks in deployment as well as how many times they return. These last practices are governed by new policies.

## 2.1 DISCUSSION

*How long are they staying and how long is the break between tours? Are they allowed to drink (to relax)?* We conducted a study of servicemen who had tours in Afghanistan and Iraq. There were two groups in the study – Soviet veterans and Ukrainian armed forces and surgeons who were still working in Afghanistan. Only a few of the second group are still there. Of the Soviet veterans – some went once or twice particularly helicopter pilots. Some veterans live in Ukraine now. 20% of those studied displayed some symptoms of alcoholism or at least too much drinking, but we cannot connect this to their combat experience necessarily. They had very strong emotional reactions to their experience in Afghanistan.

For the Iraq case, the Ukrainian contingent spent two years there and we lost more than fifteen people there. They deployed there only once, none of them had return duties. Of these, several exhibited psychiatric problems – 2 soldiers had to be evacuated from the mission area due to obvious psychological pathologies. After the contingent's return we did medical checkups, and approximately half the individuals displayed psychological disorders. Within a month after returning home, the problems disappeared without special medical support. It appears that being home and at peace stabilized these people. No special problems, especially among the officers, were observed. Some contractors were not prepared properly for the mission, did not have the requisite readiness and they could not fulfil their (combat) demands.

*Do you have psychologist/psychiatrists in your medical team? Do you distinguish between combat psychological traumas and wounded?* Yes, of course we do. Our team members study psychiatric as well as psychological problems such as emotional (combat) stress and consequent disorders. We had psychiatrists in Iraq as well as psychologists. The psychologist that was part of the peacekeeping mission in Iraq came from a humanitarian organization and had experience in military service.

*(Wientjes) You mention the image of veterans and the impact of the media and factors in society that relate to that negative image. This is an important issue, especially for military ops that aren't widely supported by population. I used to work for TNO in the Netherlands. We had a receptionist who didn't work regular hours. He was grumpy, shouted at people, and looked angry. Everyone thought he was awful. One evening I was working late and he came and talked to me. He had served as a marine in war in which the Netherlands had been involved in the 1960's in New Guinea that was largely disregarded by the public in the Netherlands. The war started with the Indonesians attacking and the Netherlands responded to protect their colonial property. It was tough for him there. When he returned as a young veteran, he went for a haircut and the barber commented on his tan, inquiring whether he had been on vacation. When he replied that he had been in New Guinea, the barber said he knew nothing about that. The war wasn't popular or well documented in the media. The barber didn't know where New Guinea was. The veteran was depressed by this lack of recognition – just that one remark impacted him many years later. There are certain peculiarities that we see in soldiers. Society (including the media) often*

emphasizes these peculiarities. In Afghanistan veterans, there are psychological problems resulting from being defenders of the state, but without support of the populace, of society. It is much better now for those who are serving as peacekeepers. In most cases they go into the peacekeeping activity motivated by career enhancement. At the end of their service, they have problems due to a disconnect with reality, but overall they have less problems than the Soviet combat veterans. These peacekeeping veterans have different motivations and goals and display different behaviours. They use spiritual and moral obligation as a source of motivation.

*(Jongman) Can we write books or use newspapers to educate and deal with problems related to image? Last week there was an article written by a Dutch soldier who was deployed in Afghanistan who wrote about his experience. The military can use this positively on one of the media programs. He explained the tough circumstances in which he had been acting, how he was thinking of using Afghans as human shields, which is illegal, and how he dealt with that. Also, more attention is given to PTSD, now we do pre- and post-screening, before it was voluntary and now it is mandatory. Do you have this? Psychological symptoms can reappear after a year or two, even if they appear to vanish right after returning. How long do you screen post-deployment because we had a military veteran who, two years after returning from a deployment shot his whole family. We have instituted an inspection for military personnel before they join peacekeeping teams. One month before starting preparations for deployment, the candidate has to pass medical and psychological tests. If they pass, they are constantly observed during that month. A special medical service examines them regularly – these aren't psychologists or psychiatrists, but the medical staff receives special training that enables them to identify danger symptoms). This same specially trained staff continues to monitor servicemen throughout the peacekeeping deployment. After they return, servicemen undergo psychological and medical by experts at the one and three month marks. Then, quarterly follow-up checkups are conducted. If nothing is noted, they are treated as typical serviceman (with a typical schedule). Our veterans display some problems, but they can't be firmly related to combat. There are other reasons (life, problems) that could be responsible.*



---

## Chapter 3 – RESILIENCE IN VETERANS: PSYCHOLOGICAL PROBLEMS OF COMBATANTS TRANSITIONING BACK INTO SOCIETY

**Sergei Aleksanin (RUS) and Victor Rybnikov (RUS)**

Drs. Aleksanin and Rybnikov stated that the media presents a distorted image of veterans and that the resulting psychological impact needs to be studied from different points of view. There are special forces units engaged in freeing hostages and counter-terrorism operations (including in the Northern Caucasus) and natural disaster operations. The interest is in studying psychological readiness and selection for these operations as well as taking a thorough look at the consequences of these operations, which is not being done in other studies. There is a need to rehabilitate and give special care to veterans of these operations; thus, the focus of their work is the study of psychological problems in order to develop therapy and remedies for these negative consequences.

They discussed a study they conducted with 178 participants, including counter-terrorism operations personnel and others. The combatants, males, aged 40 on average, had mostly served in the same unit. Of the 178 participants, 50 of them were controls who did not take part in counter-terrorism operations, but had served in the same unit and were otherwise identical to their counterparts. A special instrument developed by a psychiatrist in the military academy was used to assess the subjects' psychological state and personal qualities (e.g., general happiness with life). We sought to study those problems that prevent reintroduction into ordinary life. The differences between those who had counter-terrorism operational experience and the control group were significant. The study participants who were less satisfied with their everyday life (based on self-estimation of their psychological state) had higher (scores for) courage, anxiety, suspicion and lower (scores for) trust and calmness. In general the combatants were more likely to be dissatisfied with their life, consider their peers as better off, say they suffer from government injustices and tend to rely only on themselves. There were differences as well between the group that went on one mission in the Northern Caucasus and individuals who had gone multiple (up to seven) times. Surveys were conducted before and after operations. The number of missions was correlated with number of disorders and family problems (increased by a factor of three). Many servicemen leave the military for different reasons.

The statistics on suicides tell a similar story. In 1991, there were 185 suicides, in 2001 there were 251 suicides and in 2007 the number was 182. The Ministry of the Interior has reported more than 200 military suicides this year and, of those, most are young people under 40 years old and 25% are participants in the counter-terrorism operations in the Northern Caucasus. The rate of military suicides is lower than the national average (roughly 40,000 – 60,000), with 20 people of the 100,000 in the Ministry of Interior committing suicide annually. Nonetheless, it is clear that participation in armed conflict affects mental and physical health adversely.

Studies have shown that certain personality changes take place after combat. One such study looked at the personality changes occurring in personnel who had seen combat in the Northern Caucasus versus a control group who had not. The goal was to identify the properties of their personality that would ensure success and help to develop appropriate therapy/rehabilitation. The survey results showed decreased capability to adapt and decreased communications ability after combat based on the Scale for Assessing Coping Skills (SACS). Combatants (relative to controls) are reluctant to engage socially, are isolated socially, and demonstrate an aggressive coping strategy. Two focus groups were used to study the level of subjective control. The ex-combatants have problems with controlling behaviours, with family, social situations and physical health. Thirty percent of the individuals in the control group versus 95% of combatants showed problems. The ex-combatants were less communicative, less emotionally stable, suspicious, tense, and their level of self-control was lower. Post-deployment, those who had participated in

counter-terrorism operations were less emotionally resilient, demonstrated reduced motivation, and needed psychological rehabilitation.

Changes in coping by ex-combatants were measured before and after operations by a form of psychological therapy originally developed for Special Forces personnel by a psychiatrist at the military academy. Change in coping indicators was measured before and after mitigation (1 month mitigation period). Increases in coping related to family, communication and health were seen in the control group. 33% of the ex-combatants were not exposed to the (6 months long) mitigation/psychological therapy due to being too preoccupied or for family reasons. After 6 months, of those ex-combatants who didn't receive rehabilitation, 21% were disciplined. 20% retired for various reasons and 23% divorced. In the controls, these numbers were much lower. The study resulted in a recommendation to provide psychological support to ex-combatants. A comparison of the indicators for coping before and after the month long mitigation treatment showed an increase in self-control, family communication and health. While there is a mitigation system in place, one third of ex-combatants are not exposed to rehabilitation due to family or military duties. After six months, of those ex-combatants who did not participate in rehabilitation, 21% broke the law, 20% retired from the military for various reasons and 23% had family conflicts resulting in divorce. In contrast, those who participated in rehabilitation had dramatically lower rates.

### **3.1 DISCUSSION**

*(Krasnov) The latest figures on combatant suicides are 29 per 100,000. This level is not as high as it was 1994 when it was 39 – 42 and it is lower than the rate in Lithuania and Japan. In Lithuania, it is 49 per 100,000. This is not as high as 39, the level seen in 2004. It is in the area of 28 or 29 per 100,000 now.*

*What's your opinion on the number of accidents in law enforcement orders? Was there a decision to do a mass psychological survey prior to deployment? How efficient is this? Does it support the notion that that someone can appear one way before combat and another afterward? The law enforcement order has been in effect for ten years now. Our emphasis is on determining prospective and current incidences of psychological pathology. It is difficult to identify personality, motivation (e.g., motivations for enlisting) and other latent factors. It is a general social problem for society when candidates are only conditionally ready, but they are needed, and so conditionally ready individuals have to be taken into law enforcement or the military. Some social measures will have to be adopted. Competition is needed for enlistees, but law enforcement agencies didn't have a positive image (under socialism) and no one wants to enlist now.*

*Almost 25% of ex-combatants commit suicide? Are lie detectors used? How long do they train? No. I meant that among the personnel in the Interior Ministry, between 200 and 300 personnel commit suicide and, among those, 25% are ex-combatants. Psychologists in the Interior Ministry have lie detectors and use them when drafting individuals for military commissions, especially for officers. However, assessment with a lie detector takes time since a preliminary study is required; thus, it's not practical to study every candidate with lie detectors. For those identified as part of the risk group, lie detectors (and a more in-depth study) are used. In terms of the training period, after enlistment a candidate has a 3 – 6 month long internship. If an individual is part of the risk group, the training period is 6 months, if there are no psychological changes. If the candidate is predicted to be successful (low risk), the training period is 3 months followed by commissioning, issue of weapons and being declared ready for combat. A great number of troops retire after (a short period of) service. Initially only Special Forces took part in counter-terrorism operations. More than half of the Special Forces personnel took part in counter-terrorism operations in Chechnya and some had several tours of duty.*

---

## Chapter 4 – PREVENTION OF SUICIDE AND STRESS DISORDERS IN EMERGENCY SITUATIONS

**Vladislav Shamrey (RUS)**

(Mr. Nichiporenko gave the talk for Mr. Shamrey.) The topic of interest is stress disorder problems, PTSD. There is still a lot of controversy surrounding several issues (e.g., structure, dynamics of acute implications). People debate “Who should be saved?” “What’s the priority?” “What approach should be used?” “Who should receive aid?” A number of departments are involved, primarily the Ministries of Health and of Defence. Specialists have their own opinions and the differences in opinion are a liability.

As far as PTSD statistics, according to Susan Solomon, 5 – 12 % of civilians have it, 30% of the military and 50 – 80 % of first responders. The prevalence of PTSD in combatants is 20 – 25 %. All of this is a result of changes in the world. The World Health Organization (WHO) has identified social stress factors. These include: unfavourable life situation(s), poverty, social deprivation, high violence, wars and civil unrest. People with PTSD have a high tendency to commit suicide; that is people suffering from PTSD comprise a large percent of the suicidal population. The rate of suicides is 14.5 per 100,000 worldwide, 24 in Russia and 30 in China. The rate of suicides is also high in Europe (Lithuania and Estonia versus Finland). The World Health Organization has predicted that 1 out of 5 million people will commit suicide, but the total numbers are actually higher by 10 – 20 times. There is one death by suicide every 20 seconds, with an attempt every 10 seconds. Much of this is the result of dealing with post traumatic stress disorder. Some say the high incidence of post traumatic stress disorder is due to combat or childhood disorders, survivor guilt or childhood trauma.

Anxiety and depression as well as addiction to drugs and/or alcohol are the direct result of suicidal tendencies. Mobilization is the first phase necessary to save victims. Acute problems, like the loss of property or income, lack of finances or housing can cause suicidal behaviours to increase. The main principles of providing psychiatric aid apply here – reinforcing the need for continuity of aid and provision of aid to rescue personnel and victims. Interoperability of different departments is important, but it is often difficult to achieve cohesion due to personality differences in commanders. Immediate aid, including psychological aid, should be efficient, minimal in scope and tailored to the emergency, followed by evacuation and specialized aid in hospitals. An emergency is seemingly over after the victims are evacuated, but this is not true. Both medical and social/psychological assistance needs to be provided. Mass media efforts are important and public awareness is needed. In emergencies, mass media can cause panic, etc. Mass media is also important in the way that ex-combatants are portrayed. Often images of ex-combatants are not presented or framed positively. Also treatment of ex-combatants has been inconsistent; for example, bonuses were declared for ex-combatants, but they were only granted once; there was no follow-through. After that the ex-combatant was expected to be a “regular” citizen but the transition to civilian life was not always so smooth.

The Ministry of Defence doesn’t have much to do with retirees, but other (civilian) agencies don’t take enough responsibility, resulting in increased incidence of psychological trauma and apathy. This is also true for those serving on nuclear submarines. Those who serve should be carefully selected and prepared and given psychological training, including training to build resilience. The training and resilience level of “saviours” is important – if they know what to do, there is no true emergency and their health should not be affected. The terms of training for their adaptation (to stressful situations/environments) should be increased. In the long term, servicemen should get high-level professional training that approximates closely the conditions they’ll be facing (e.g., the servicemen trained in Tashkent prior to deploying to Afghanistan). They should be confident that they would get prompt medical care, even in the case of psychological trauma. Rotation of servicemen is important for dealing with trauma, stress – they must come back home from time to time.

Optimism is a very important factor. One issue is the scale of implementation of individual resources to deal with the problem. If an individual has internal resources and good communication skills, they will have a positive experience in critical situations. It is critical to detect those (through screening or by intervening when military members speak about suicide) prone to suicidal behaviour, considering all influences including the media and the environment. Sometimes through attempts to treat grief, we can find the groups of people who are at risk. When an individual attempts suicide, we give him acute care and then tend to ignore him in the long run. In the West, the prevailing wisdom is that they should follow that person to detect individuals prone to suicide – a good idea. In the Army, the number of suicides is lower, but the situation is worse because suicide is a tragedy for the family.

Indirect preventive measures should be used as well. There must be agencies responsible for the psychological health of military forces, to include those that will provide special psychological support before enlistment as well as during operations. The commander of each unit should have responsibility for the psychological health of all their servicemen (using direct measures such as suicides and talking about suicide). Suicide is complicated. Some believe they can't prevent suicide, but it is possible to work with those at risk – those with psychological versus psychiatric problems. Suicide is often a reaction to situational stress and not a product of a psychological disorder. We cannot always identify suicide-prone psychological profiles and intellectual capacity is not a shield from it. Durkheim said that any subjectively perceived event can trigger the idea to commit suicide. There is not a neat set of specific features that help identify a situation that would lead to suicide or identify people prone to suicide.

## 4.1 DISCUSSION

*How do you make a diagnosis of post traumatic stress disorder?* We have a definite understanding of stress disorders, of PTSD. Some people think that during a mission a person can get schizophrenia, but that is a difficult thing to determine.

*(Tarabrina) We find two kinds of diagnoses. When we compare the results here with result obtained outside Russia, we find that they use different criteria but those clinical practitioners don't deal with these cases as frequently. These diagnoses are rare. There is some data recently published from a cross-cultural study on PTSD that was completed in accordance with PTSD standards. We studied Afghanistan veterans. They are consistent with results from a US study. We have 18% in Afghanistan with PTSD – the number in other places is higher (20 – 25 %). We cannot always identify specific PTSD symptoms or determine definitively whether a person has PTSD.*

---

## Chapter 5 – BUILDING RESILIENCE IN CIVILIAN POPULATIONS

**Valery Krasnov (RUS)**

The topic is building resilience in civilian populations – a difficult and multi-faceted topic due, in part, to the fact that it is impossible to reproduce what's being done elsewhere. We largely focus on those who have experienced combat in the Northern Caucasus. For three years, we were engaged in the Chechnya War from 1994 – 1996, followed by a second war from 1999 – 2004. We can talk from firsthand experience about how difficult it is to form resilience, to resist hardships (note that we don't have the same exact term in Russian, our term is narrower in meaning). Today, Russia is a multi-ethnic republic. Chechnya is part of the Russian Federation. Grozny, the capital of Chechnya used to be mostly indigenous Russian, but it is not anymore. Tremendous changes in the populations changed that, with 250,000 people lost before the first war in 1994.

After the disintegration of the Soviet Union, separatist movements appeared in Chechnya. They were agitating people with nationalistic propaganda and talk of independence. Russians, other ethnic groups, including Jews, were pushed out with threats, cruel acts and murder even before the first Chechen war. People were inspired by the notion of a new republic because they had initial resources, including oil that could provide wealth – but didn't have labour (a key component). Chechnya has mineral resources but needed specialists to extract these. Currently some indigenous Chechen cultural traditions are being restored and hopefully this will help restore peace and “normal” behaviour. The conflict in Chechnya is not new – even back in the 18<sup>th</sup> century, Chechnya was a difficult region! More recently, there were attempts to help Chechnya before 1994.

Conflict is far from over in Chechnya. Before the war, separatists preyed on Chechnya's ethnic Russians. Since the war, there has been a hard time restoring normalcy. Several hundred thousand Chechens live in Russia, in Moscow and St Petersburg. They are not part of the conflicts, not agitators. Chechnya was badly damaged in the war. And Grozny, like many other towns, was completely destroyed. After the first war, Chechens came back to Grozny and tried to restore it. People were deprived of safety, habitation, secure income, good food and water. 300,000 Chechens tried to escape and moved to neighbouring Ingushetia, staying there in refugee camps for 5 years. Due to the trauma, the loss of infrastructure (electricity, water), broken family ties and scarce food, some family members became refugees, and some left and settled in Scandinavia and Belgium. Many of those individuals have no special hope or desire to return, based on my conversations, because it won't be restored as before. The conditions were really difficult. Our survey of Chechens in Grozny and Gudermes produced statistics on the incidence of various experiences related to trauma. This survey indicated that 16.7% of males and 18.5% of females experienced direct and real threats to life, 5.1% of males and 0.7% of females experienced bullet injuries and/or mine wounds, 0.7% of males and 0.7% of females witnessed violent death and 3.3% of males experienced physical violence and torture.

Akhmad Kadyrov participated in the first Chechen War as an insurgent. In the second war, he sided with the federal forces. He forbade the mullahs, the religious authorities/Muslim clerics, to visit the schools and incite the teenagers to go to the mountains and take up arms and go to war with the federal forces. The militants acted through the mosques. The Chechen Muslim community is not generally that radical in Chechnya. Kadyrov forbade supporting the insurgents and was quite effective as, in general, youths indeed didn't replenish the ranks of the insurgents. He became president in 2002. When Chechnya was well on the way to recovery (hospitals, schools starting to work), he was assassinated in a stadium bombing. His son, Ramzan, took over from him. He is continuing his father's recovery policies.

Life is getting back to normal, thanks to the constructive attitude of the Chechen community. The local authorities, in an unprecedented manner not seen in the West, acted within this society's traditional hierachal structure (i.e., obedience to elders) and are slowly sorting things out. The measures used by those in power might be tough, and might not conform to democracy, but they're resurrecting the Chechen way of life. The economy is improving. The need for humanitarian aid is decreasing. People have received compensation for lost property and pensions.

As medical doctors, we try to help people and need to know the truth and not the official information. To get reliable information, we conduct our own studies. In 2002, we conducted surveys in Chechnya in Grozny and other small towns that assessed the incidence of threats to life, injuries, witnessing violent death, physical violence, torture, relatives' violent deaths and disappearances, divorces, witnessing of homes destroyed, psychological trauma, and other events. We performed these surveys in rural and urban areas and also surveyed former residents of Chechnya, etc., in 2002, 2004, 2006 and 2008 in an attempt to quantify the prevalence of mental disorders. We assessed the incidence of sub-clinical mental disorders and pronounced mental disorders using a general mental health questionnaire (GHQ-28). In 2002 (a year that saw high fatalities), we found that 77.3% of the respondents exhibited sub-clinical psychological disorders and 9% exhibited pronounced disorders. In 2004 (the year marked by the violent capture of trains and the Moscow theatre siege, etc.), 69.7% of the respondents exhibited sub-clinical disorders and 6% exhibited pronounced disorders. In 2006, when active combat stopped, 58.9% of the respondents exhibited sub-clinical disorders and 4.4% exhibited pronounced disorders and in 2008 (marked by limited conflict in individual areas, especially in mountainous areas) 41.7% of the respondents exhibited sub-clinical disorders and 1.4% pronounced disorders. We found that women, the creative part of society, started the Chechen recovery.

We cooperated with specialists all those years to mitigate language and cultural barriers and make it possible for us to mix with the local population and help them. This was essential, as we needed to influence the entire community. However, we could not communicate with common Chechens. There is a very complex social hierarchy there. Traditionally in Chechnya, senior citizens are considered to be the masters and they are the most important members of the family, e.g., the senior brother has authority over the sisters. War disrupted those values, but the return to peace has brought things closer to "normal". In 2007, when there were still many destroyed buildings, the hospital had not yet been restored.

Many psychologists in Moscow and St Petersburg have studied PTSD among Chechens, the incidence of which is: 31.1% (2002), 30.4% (2004), 25.2% (2006), and 24.9% (2008) versus 3.9% for the control group. The current rate of PTSD is 5.1% (assessed using the Munich survey and based on a good sample). We did follow-up questioning, focusing on youth and college students. These individuals were probably not belligerents during the war, they did not have destructive motives and traumatizing factors affected them less. Only 4% of the teenagers we questioned who returned from the refugee camps developed PTSD. They are not politically motivated, but simply want an education and a job. The conflict in Chechnya was viewed as being between the federal government and the indigenous Chechen population. This research was conducted with Dr. Idrisov collaborating with Professor Krasnov. The World Health Organization assisted with the surveys. This team is now focused on Georgia.

The mental health survey we conducted from 2002 to 2008 involved 4600 people from five districts, Grozny, Gudermes, Urus-Martan, etc. The control group came from the Nadterechnaya district where there were no major battles. Indicators of distress according to the general health questionnaire (GHQ-28) showed a slowdown from 86% (2002) to 75% (2004) to 65% (2006) and 56.9% in 2008. The control group exhibited fewer indicators of distress: 44% (2004), 44.5% (2006) and 43.1% (2008). Those directly involved with conflict showed higher figures. The stigma attached to having a psychiatric disorder is substantial. Individuals are afraid to apply for help from a psychiatrist (e.g., a girl won't typically get married if she sees a psychiatrist and it is known in her community; she can only see someone in the general ward). Only 4% of patients with non-psychotic psychiatric disorders applied to psychiatrists –

others applied for help from primary health care or healers. For this reason, a medical network was set up to identify patients with mental health problems at the primary health care level. Medical and psychological approaches do play a modest role in recovery and reconciliation processes. We provide medical and psychological support. In addition, new clinics have been built.

We cannot use western democratic models in Chechnya, Pakistan and Gaza. The people are smart and have resources; they are not backward people. Conflict was predictable there. The tendency for the situation to improve was observed, but it was not obvious until the reestablishment of a strong local authority, and law and order. It was not very democratic at the beginning, but it was efficient. The rules and habits of peaceful life have been enforced under threat of repression (e.g., by Kadyrov). The social model of “kinship” was better for Chechens than democracy. Mullahs often provide counselling for people (people would rather go to the mosque rather than go to a doctor). A visitor to Chechnya first encounters historic ethnic traditions, in spite of modern education and communications systems (internet). We have the “Greatest Mosque in Europe” (the largest in Europe) in Chechnya (in Grozny). Note: this mosque, also known as the “Heart of Chechnya Mosque” was built in memory of Kadyrov and opened in 2008.

## 5.1 DISCUSSION

*(Jongman) The name of Grozny has been changed – is this not officially recognized by Russia?* In Tolstoy’s time, they were engaged in the Crimean War. The towns described by Tolstoy were used to protect the northern part of the empire. The name Grozny indicated the threat of aggression and it was necessary to counter the threat. Grozny can be translated as threat or threatening.

*(Speckhard) In terms of working with the local structure to promote mental health, is there a push to work with the local mullahs?* In terms of religious traditions – the Muslim tradition is not as strong or as deeply rooted as Christianity. When the Caucasus was conquered in the 19<sup>th</sup> century, many Muslims immigrated to Turkey in order to stay Muslim and not convert to Christianity. The number of Christians in Grozny is very small, though, because eventually they were squeezed out. A priest in Grozny was killed at the end of the war, in an attempt to sustain the conflict. People come to the mullahs for a variety of reasons. In the local culture, it is considered normal for the mullahs to render health aid and drive the “devils” out of the people (psychological disorders are “jinns” or devils). We try to give medical aid, but mullahs also help people cope with various conditions. We need well-educated clergy who understand the situation and the value of therapeutic conversation, and who will thus advise people to go see a professional medical doctor. In terms of education, they are trying to get workers back from Russia (teachers, etc.). In Chechnya, the closer the interaction with universities and science, the better the situation will be.

*(Danielsen) Are there lots of types of psycho-trauma? Are you aware of gender related violence, rape, in the Chechen conflict?* In the Northern Caucasus culture, violence against young girls or women would be punished severely. But in military conflict, men do not avoid engaging in such criminal activity. The limits of what’s acceptable change (during war) and ethical norms are thrown away. They forget that rape is a criminal activity. This is true of every war, even wars raged for noble causes, even wars for liberation. Participants of war rationalize that “we have our cause, our transgressors are held responsible”. In Chechnya, it is illegal and trials are held. If transgressors are found and they have evidence (for rape), they are tried in court. Blood is everywhere, in times of conflict, it happens. This is one of the reasons Akhmad Kadyrov viewed it a priority after the war to restore law and order, hospitals and universities and normal social structures.

Currently, the populations facing the greatest difficulties are women and men between 40 – 60 years of age because they can’t find jobs. In Russia, at 60, a man can apply for a pension (55 for women). Women have a better chance to get a job; for example, they can find jobs as cleaners in hospitals, but men are really in trouble. There is 50% unemployment in this demographic. Those who aren’t educated or members of a

certain profession (teacher, etc.) are particularly vulnerable. They cannot get a job in the militia or with the police. In many cases, their families end up supporting them.

*(Wientjes) I would like to say something about rape. In the Netherlands, to obtain a Ph.D., you must make a series of statements. Rape in conflict must be considered warfare, a crime of war. As a psycho-physiologist, I can say why rape is occurring. Testosterone levels (important for survival) in war are 40 – 50 times normal – this produces a strong drive to fight, but also to be sexually active. Another consideration is the evolutionary benefit – males, in combat situations, when their lives are at risk have one option (or imperative) – to produce offspring and that is why they rape women.*

*(Danielsen) Raping women is harmful for civil society. Soldiers are ordered to rape to demolish social structure. It's been a regular practice in warfare. Russian troops in Germany in World War Two were ordered to rape and raped a lot of women. Then they stopped when they thought it would be unpopular with the US. Rape is sometimes used as a military strategy. It is a popular way of destroying the social structure (examples are Algeria and the Balkans). I cannot answer, but I will comment. The cruel fact is widely known that during World War II (initially perceived as a patriotic war in Russia, since Hitler invaded Russia), Germans were decent at first but that changed and that spurred guerrilla warfare against the Hitlerites. Some leaders punished rape committed by their troops and others turned a “blind eye” – much depended on the commanders. It is known that, during the first offensive, some Germans raped too. There was a lot of this behaviour. After the Southern offensive started, different troops behaved differently.*

I wouldn't trust the American sources of information on this – as they were engaged in a propaganda offensive against Germany, designed every bit as much to defeat the Nazis as was the British demolition of Dresden. I have my thesis. I think it is a crime and internationally recognized as such. We need to look for reasons, rational, or not. When we started working with Chechens, I tried to avoid discussing war – we can discuss treatment, etc., but not war as that made people tense and take the opposite position on the violence, saying that Russians were ordered to perform atrocities. I don't think there was an order to rape Chechens, but certainly things were ignored at times and some may have done it without being punished. Survey participants ask, “why (someone was) killed”, although the people doing the survey were not responsible (for collecting this information). The surveyors often changed subjects to deal with this uncomfortable situation.

*(Speckhard) Rape in conflicts is common. I was stunned when I met US psychologists and they told me that US servicemen admitted to raping women in Vietnam. We know that in the Balkans it happened on a huge scale. In our research I learned that men were raped, too (in Iraq and Chechnya as well). The effect is to try to humiliate and say “I have power over you”. When it comes to being shunned after a rape within a conservative society I can say as for the Chechen case, the families would not reject a woman who was raped in war, they were not shunned, because they were seen as clearly not at any fault for the rape.*

*(Jongman) According to Rapoport's four waves of terrorism, the fourth wave involves the use of suicide terrorism as a tactic. Rape could be one of the characteristics of the fifth wave. An Australian anthropologist is looking at Africa and this issue of rape.*

*Was the sample of your survey about 4600 people? It was 4600, (not including the teenagers (under 17). It was conducted in the same areas as Grozny, but it was a random sample. It was not a longitudinal survey and thus it was not conducted with the same people or the same population since many displaced people had gone back to their homes – the participation was voluntary. Khapta Akhmedova and others were involved – 75% of the respondents were the same in the survey conducted 2 years later. The households had moved quite a bit. Urus-Martan had changed quite a bit. It was a centre of the conflict, a mountainous region, and the resistance was quite active. Basayev and opponents of Kadyrov were located there. Gudermes was less affected – there was no bombing, it was not destroyed. The heaviest losses were in*

Grozny. Correspondingly, that is where we saw the worst psychiatric problems. For comparison, we took samples and in terms of personalized matches it was about 65 – 70%. The teenagers were different because after 2 years they would move out.

*Did you make comparisons to other samples by other researchers?* I don't think there is another survey with the same scale and scope. We are aware of other work and go to conferences.

*Are there differences between regular military and others?* There is no scientific data, but there is common knowledge. It is thought that the contractors are crueler; the ethical norms for them are non-existent (they are “dogs of war”). Others confirm this. Take the US. The average person is nice. However, it is well known that in Vietnam, some would throw victims from helicopters to see if they'd have heart attacks before they hit the ground. War unleashes the darkest forces in people.

*(Mutatoff) Is there a significant decrease of people stressed during wartime because they get used to the situation?* In general terms, the military has some data (that they won't make public) showing that people do get accustomed to war. War becomes a “normal” lifestyle, one characterized by excessive aggression, and possibly by abnormal hormone levels. Some people can get accustomed, but they effectively become compressed springs and have a hard time going back to “normal” after the war. Let's take an example of an uneducated younger man from a village, an average person with average ideas about life. This person comes to a mountain village and people are hostile to him. He perceives a threat – someone could ambush him. This sense of a threatening environment is very important. He could get into a real ambush. Some people have trouble acclimating to a new environment (e.g., in the city after living in the mountains). The environment and surrounding people take part in creating the personality.



---

## Chapter 6 – WHY CULTURAL AWARENESS IS VITAL TO COUNTER-INSURGENCY (COIN) CAMPAIGNS

**Tone Danielsen (NOR)**

Today's conflicts are very complex and constantly changing. Thus, there are challenges in planning, executing, supporting, training/education. This is truer today than in the Cold War era. Things were more predictable then.

Culture is an awareness of cultural heritage, including professional culture. We need to get rid of hard-wired "truths". Culture isn't tangible. Everyone has it. There is a saying, "Culture sticks to the walls", but this isn't true and thus organizational change isn't seamless. Culture is a shared understanding, solving problems from different angles. Culture is in our hearts and minds. We know it, but we forget it. We know it's not just a national thing. For example, Norway is big; it's quite different from North to South. Nations are not homogeneous. Social memories, like national days, are the way we call ourselves a Nation. "The War" is World War II in Norway. We as a culture define certain events. Bodily practices and individual stories are all part of culture.

Culture is how we think, act and communicate. Culture is not static; it is constantly changing and reinventing itself. For example, Chechnya today is not the same as 50 years ago – we continuously reinvent culture on a local and national level. Benedict Anderson talked of "imagined communities" (that Nations are socially constructed and "imagined" by the people that perceive themselves to be part of that group); that we don't know everyone, but we feel like part of a single entity. The armed forces have a culture, but not everyone knows one another.

Culture is expressed in symbols and in rituals. Nations are not homogenous, nor are professions, but professions have a big impact on how we think and act. Education and professional experience give people cognitive maps (different ways of viewing things), toolboxes and certain ways to communicate. This makes cross-cultural teamwork very demanding. What kind of mythology do we use? Do we use statistics or case studies? Do we count things? You couldn't run a group of social anthropologists like a (military) battalion, it wouldn't work, and vice versa.

Culture gives us a foundation. We see the world from an elevated platform. For example – the view of the world as The "West" and the "Rest", where the West is US, Europe, Australia (not a geographic continuum), and we see things through culturally tinted "rose coloured glasses", the west as democratic, civilized, etc. We interpret and see things through our cultural context and we need to be aware of that context and not jump to conclusions based solely upon it.

Let's talk about some principles of insurgencies. The goal of insurgents is to gain power and to make the costs larger than the benefits for the regime or occupiers. Not all insurgents are terrorists, but they may employ terrorist tactics from time to time to achieve their goals. When we look at the Middle East, it's interesting that they often know our concepts, doctrine, political goals and rational/values whereas we often fail to analyze and understand their culture, language and practices. Those that do understand these things are often muted or not paid any attention. Ethnic or religious insurgent groups may not use religious texts to find a way – they may use ideological texts from different revolutions, such as those by Mao, Lenin, Che Guevara, Lawrence of Arabia, and Gertrude Bell. In Iraq, as described in Michael Collins' book, they used the IRA model (Editor's note – there was significant disagreement among the group on this last point).

I've talked to Professor Ahmed S. Hashim at the US Naval War College about Counter-Insurgency (COIN) operations in Iraq. He told people that there was an insurgency in Iraq and implored them to do something

and was ignored. Calling a movement an insurgency is an admission that the local groups do not consider the political leadership legitimate. This sort of denial is why starting a counter insurgency takes time. The old analysis of the insurgency in Iraq described it in terms of Shia versus Sunni (“good guys”), but insurgencies are rarely religious. They are about politics and identity. The Sunnis held the (political) power for many years. The Shias were closely connected to Iran. When you take power away, people naturally revolt. Most Shias used what, for them, are their “normal” strategies (given the imbalance of power) – they’ve been repressed for years. They were used to being “low man”. The Sunnis revolted. Groups with power react differently than oppressed groups.

During armed conflicts, jails are great gathering places for the “bad boys”. People, including charismatic leaders and criminals, often get together in jail and get their stories straight and then they are coordinated, well organized. In Iraq, they organized in jails and read works by Lenin and Mao, as well as the IRA book, which they followed precisely (Editor’s note – there was significant disagreement among the group on this point). Time plays a key role – war is very expensive and the insurgents aren’t going anywhere so a protracted war is a good thing (gives a group time to build up structure) in that it makes it expensive to keep fighting. Sir Robert Smith talks about “war among the people” – this is war for the people. The insurgency in Iraq moved the war from attacking military battalions to war among the people (and for the people). They need sanctuary and Support – so they can’t use terror tactics too much because the population would turn against them. They need mass population mobilization to inform and indoctrinate; thus, some of the stories we hear aren’t made for us – they are intended for their own population (target audience). There are blurred boundaries between the civil and military spheres when dealing with insurgencies. The insurgent operational art includes “hit and run” tactics, guerrilla tactics, terrorism, targeting those who collaborate with “the enemy” to teach them a lesson (e.g., Iraqi police) and infrastructure takedown.

Why are things going badly? Dealing with insurgencies presents some problems in planning. Sun Tzu, philosopher, military strategist and author of the “Art of War”, said that if you don’t know yourself and your enemy, you will lose 100 wars and if you know yourself you will win 50, but to win all wars you need to know both yourself and your enemy actual, not idealized strengths and weaknesses. An insurgency has some common patterns, but the cultural context is always local and cannot be easily transferred. Therefore, some hard-programmed truths and rules need to be reprogrammed – it (the insurgency) may look the same but it is not. The same action might result in a very different effect; thus, it is important to rehearse different scenarios in order to be able to recognize patterns and not jump to conclusions. All potential courses of action need to be contextualized in time and space. What worked five years ago or even a year ago or in the Balkans or another theatre might not work now! In terms of planning, military officers are trained in conventional warfare, but COIN campaigns are unconventional. Moreover, they are deeply complex, and must be compatible with the local cultural context in order to achieve their strategic objectives. As such, success in COIN depends upon commanders’ deep understanding of a spectrum of topics not included in the conventional military syllabus, politics, religions or cultural complexity. COINs are thought to be 80% politics, so understanding the politics, etc., is essential. Usually leaders have a short course when they are in their 40’s, but that’s too little, too late.

COIN campaigns must be planned, conducted and executed by teams with complementary, cross-cultural competences and members. However, working in cross-cultural teams can be very difficult. Everyone has to deal with the same problems, but they do it from different angles and have different ways of interpreting what they see. You are seeking diversity, but many people aren’t really open to that. “How do you respond to answers you never asked?” In a military campaign, when we act or communicate we send signals and we need to have cultural awareness to understand the local context to anticipate how these signals will be perceived. “To be entombed with all your prejudices and biases is not a part of any humanitarian convention.” It is very important to at least be aware of our own biases and try to get rid of them! Otherwise, if you only have a hammer, all your problems will be nails. To stick with the tool analogy, you need a huge toolbox to counter insurgencies effectively.

## 6.1 DISCUSSION

*(Fenstermacher) You should be aware of the cross-cultural team research (done in NATO Research and Technology Groups under the Human Factors and Medicine Panel) led by Dr. Janet Sutton (USA).*

*You're saying that they read the IRA book in prison? That's what the Naval War College guy (Professor Hashim) said. (There was much discussion negating this view).*

*(Jongman) Many of these problems are new and unprecedented. A lot of the problem was the US getting rid of the Iraqi military – they had military training and organized the insurgency without the need to read Michael Collins or Lenin or Che Guevara. Also, the global jihadis played a very important role. They are in sixty countries; it's a completely new enemy. They went into Iraq and manipulated the situation to establish an emirate. It's an issue to use too much violence; AQ in Iraq intimidated and killed people and they lost some popular support and that's the reason for the decrease in violence. Counter-militias were organized with the help of the US. The exit of the US will leave a vacuum. Signals are that AQ is still there, reconstituting and making a comeback. So the Sunni/Shia power shift is important. Now the Sunnis are seeking to get in the government again and you get cooperation between global jihad and the local Sunnis (due to their grievance). Iraq is a very complicated case. Not all insurgency in Iraq is associated with the global jihadist movement. AQ is not behind everything in Iraq.*

*(Jongman) No, they know how to exploit local conflicts (Somalia, etc.).*

*They don't want to see global jihadi and AQ support for the Taliban. They supply expertise, explosives and money.*



## Chapter 7 – EMPIRICAL STUDY OF THE TERRORIST THREAT: LESSONS FOR RESILIENCE FROM AFGHANISTAN

**Nadezhda Tarabrina (RUS)**

I could have presented my past research, the cross-cultural PTSD study conducted ten years ago, which fits with the theme of this conference. However, I'd like to talk about the final phase of a study started after the NATO-Russia Advisory Board was formed to discuss research related to counter-terrorism operations – a study on the psychological aspects of terrorism threat. Terrorist attacks have direct and indirect victims with different traumatic stressors – PTSD factors. While lots of people have studied the direct victims of the 9/11 attacks, less studied are the indirect victims. Direct victims have traumatic stressors, but indirect victims also have traumatic stressors in the form of information about the actual of impending terrorist incident by means of the mass media and other sources. So there is an impact on the civilian population, even for those not directly involved. Some of the indicators are increased fear of death, rise in aggression, increased vigilance, emotional arousal, increased use of cigarettes, drugs and alcohol, increased anxiety and responses characteristic of PTSD – depression, symptoms of psychopathology and dissociation.

For the past six years, our faculty (at the Russian Academy of Sciences) has examined the effects of direct broadcasting of the acts and the exposure of the citizens to the acts, comparing the impact of TV and radio broadcasting on various populations in various regions. The study I will discuss is an integrated one with psychometric methods used by us and our US partners to identify symptoms of PTSD. The set of methods we used are conventional/widely accepted measures – the Mississippi Scale (MS) to identify PTSD, methods of Spielberger (State-Trait Anxiety Inventory) to measure anxiety, the Eysenck Personality Questionnaire (to assess personality traits), the Lifetime of Experiences Questionnaire (to measure current mental activity levels (and how active over the lifetime)), and the System Checklist 90 (to determine expression of psychopathological features and assess levels distress). There is no existing special toolkit to determine the intensity of individual experiences and emotions of those who lived through the (terrorist) attacks. It took two years to develop a special questionnaire to determine the emotions and other psychometric methods (test of validity). The questionnaire had 50 questions and looked at the impact of mass media on civilian populations. The questionnaire had a validity of .93, estimated by means of a comparison of scores of QTT index between the different groups – psychiatric patients and health groups.

There were 494 subjects overall, a group in Moscow (n = 288), a group in the Chechen Republic – Grozny, Gudermes (n = 73) and a group of the residents of Chita in Eastern Siberia (n = 133). We looked at the remote experience of terrorism. To look at the indirect impacts, we performed another test – an associative test (fear, death, explosion, pain, murder, disaster, blood, tear, victims) – a sentence like “terrorism is...”. After analysis, we had a semantic mapping based on frequency of associated words, a rank ordered list. We processed the data statistically. Overall, “fear” was the top association (n = 264), followed by “death” (n = 224) and “explosion” (n = 129). The remaining associations, in order of ranking were “pain”, “murder”, “disaster”, “tear” and “victims”. We found that in Moscow the highest word association is fear, in Chechnya murder and death and in Chita there were no significant associations.

Another method was used to determine how intense the feelings are and males had much higher intensity in their responses than females (3:1). The group exhibiting the highest and most intense response/reaction (based on the Total Index QTT) was Chechnya (145.5) relative to the group from Chita (139.4) and the group from Moscow (128.5). How to explain this provocative response? Simon Wessely, in an article on the London bombing, wrote that Londoners were very resilient. It could be hypothesized that Moscow, a city that has been subjected to a higher number of stresses, is more resilient, or more tempered, used to continuous stresses. They don't seem to react as much to the media messages. This assertion should be backed up by empirical data at some point.

Another thing, quite important, is that people respond to stress in a different manner – some suffer from the exposure to stress, some fall ill and others do not. However, there was not enough data on how people live through stress. In our study of how people respond to stress, how mass media manipulates emotions, the subject group was divided into three parts – one group with high PTSD levels, (here we look at emotions and intensity and correlate with PTSD), no PTSD symptoms and partial PTSD manifestations. We analyzed how the groups' PTSD manifestation reflected or was associated with the intensity of the attacks. Overall, the study group contained individuals with high level PTSD ( $r = .148$ ), moderate levels of PTSD ( $r = 0.02$ ), and no PTSD ( $r = .14$ ). If one looks at sub-scales – Obsessive Compulsive Disorder (OCD), anxiety, MS scale, we can measure the interrelation with PTSD.

Perception of the terrorist threat doesn't depend on age or gender, but rather is interconnected with negative emotions – higher anxiety, decreased adaptation, and somatic discomfort. Emotionally unstable, introverted people who suffer from different symptoms are prone to more intense perceptions of the terrorist threat. Others aren't affected. For those who exhibit some psychological indications or sub-clinical states, we cannot predict what will happen or make a definite diagnosis because the development can proceed along different lines. They could develop problems that can't be diagnosed (not covered by the factors in the study). Perception of the threat is correlated with intensity of PTSD symptoms. Thus the terrorist threat is a traumatic stressor. Now we have a new stressor due to (the H1N1) influenza. We need to assess this new threat, using this methodology and thus create a screening method for psychological systems.

## 7.1 DISCUSSION

(Krasnov) *The suicide rate in Moscow is lower than regional rates – it's (at 12/100,000) comparable to Berlin or Warsaw. Maybe the people of Moscow and St Petersburg feel they are defended and supported by specialists, including this Institute, who are ready to help them. In Siberia, people feel forgotten and undefended; the local power brokers follow their own interests and have not demonstrated that they care about the peoples' health and resilience. Russia consists of very different regions from north to south and the people are very different. A lot depends on the local organizations and how care of the population is organized. People in some places are very prone to media influence; in Moscow they'll change the channel.* When we were planning this study we understood that the impact on a person is conditioned by a great number of factors. So we tried to eliminate social factors and focus on other factors. We had to use tools that were stable, not overly dependent on the influence of external factors. For example, we would like to understand why TV images are so influential, what is the mechanism behind the influence of these powerful images in which no decoding is necessary and pictures go 1:1; that is, they are directly understood. After all, people who live away from sites of terrorism exhibit symptoms of PTSD, something that needs to be studied in depth. We use a lengthy survey in order to understand what is going on. Our work is a pilot project that has raised a lot of social and psychological questions, which is one of its purposes. We wanted to start cross-cultural studies and compare different data with similar methodologies. We have a cross-cultural study with veterans from Vietnam and AFG. The results were quite stable – same approach, methodologies. The results of studies depend on many factors; we can't use one ruler to measure all factors.

(Krasnov) *Simon Wessely presented his work that looked at the influence of a small population of London. His group got different results for different parts of London – different for the city centre, etc. These results were unexpected, but not viewed as tragic. They didn't study the Russian population of London. Now you have your data on Moscow. Is resilience associated with big cities or cities that went through World War II? Maybe it's in their mentality that they are survivors?* I think some of this needs empirical study. Russia is obvious as the first site. Instead of experiments, we could make the judgment relative to the perception of threats. I think the experience of people is valid and important. Muscovites show lower level responses to threat. It's a terrible place, stressful. Yes, there is still a part of the population that develops such signs. Explosions in the underground provoke discussion of negative expectations and media coverage filled with negative emotions. They prepare horrible things in TV programs and newspapers and naturally they make the perception worse.

*(Danielsen) I see the same patterns in sociological and anthropological research of risk assessment and fear. It was interesting the way you used the media in your research. The swine flu thing was crazy – a media hype. No one died in Norway. People in Norway went crazy because three people died in Mexico from swine flu. Our Minister of Health said 130,000 people would probably die from the swine flu. A professor said that it wasn't a big deal, that normally 100 people or so die from these influenza viruses and counselled people to relax and wash their hands (to prevent getting the flu). Media impact is huge in isolated places.*

*(Krasnov: Question for Danielsen) I was interested in your presentation. I want to broaden the question you raised. Not only do we have to account for culture, we need to present an alternative ideology. In conflict, we have the aggressor, the group defending the people and the actual people of a culture. If an aggressor comes, the population supports the defending group. We can identify the cause of the failure in Iraq by recalling Soviet history. In the Western Ukraine after World War II, they had armed opposition to Soviet power. Stalin identified the group and they were sent to Siberia or exterminated. A new Soviet ideology was successfully introduced as a replacement for the old ideology and the counter insurgency was extinguished. Popular support for the defenders was stopped. Now we're trying to combat Islamic fundamentalism; however, we aren't suggesting an alternative in order to stop the support for the defenders of their culture. What is your opinion?*

*(Danielsen) We try to use military force to take land, but we don't want land. We want them to change the way they think and act. So we're using a tool that doesn't fit.*

*(Varus) Sending people to Siberia isn't the way we want to do it today. We don't know what we want to do and we haven't agreed what we want to gain from it. It's difficult, like raising kids. You can't say, "don't shout" while shouting. It's the same thing. In order to make people civilized, you have to be civilized. You have to provide a role model. In Chechnya they want to be civilized and modern, but in their own way. You need a military and political end state in mind. I agree with you that in order to do and believe something else you have to provide an alternative. Like drug addicts – if they don't have a job or something else, they won't quit.*

*(Wientjes) There needs to be an alternative. We should avoid a political discussion. There needs to be strong agreement between Nations that military power isn't enough. We need an integral and encompassing effort including civilians. Also a lot of work needs to be done in terms of the reconstruction. These are difficult issues. Obama didn't develop a military end state and that makes people focus too much on the military. At NATO Headquarters, we discuss this on a daily basis.*

*(Jongman) The Sri Lankan government was very tough on the Tamil Tigers and in a few months completely defeated them. What will the long-term results of killing 10,000 people be? How do we generalize this? There is a huge humanitarian crisis. We have the Pakistani government going into areas and creating a huge humanitarian crisis involving lots of refugees – 2 million and another 500,000 coming from Waziristan. These are big challenges in terms of how to deal with this – should we adopt the Sri Lankan strategy or will the refugee camps foster more terrorism?*

*(Aleksanin) I am reminded of the historical context of Soviet War in Afghanistan from 1979 – 1989. Apart from military operations, some policies were in place for reconstruction and political support. Industrial work was done. Ten years later, the decision was made to withdraw. Still, the democratic government of Afghanistan remained and stayed in power for two years. It was replaced by the Taliban and you know what resulted. Clearly a military solution needs to be complemented by social reconstruction and other associated activities.*



---

## Chapter 8 – ACTIVITIES OF THE NATO RESEARCH AND TECHNOLOGY AGENCY

**Cornelius Wientjes (NATO)**

I was asked to talk about the NATO research organization. I'd like to use this as an opportunity to go through the work we've been doing for 7 – 8 years involving social science contributions to combating terrorism. The NATO Research and Technology Organisation (RTO) promotes cooperative research and information exchange between NATO Nations and with Partner Nations. The goal is to bring Nations together not to do new things, but to explore commonalities in a multi-national program. There are no separate NATO facilities for research; we base the research program on what the Nations are already doing in terms of Research and Development (R&D). We leverage the current R&D investment and add the multi-national component to meet the military needs of NATO and advise NATO decision makers. The most important element is the network of 3000 experts who regularly come together in working groups, workshops or symposia on specific topics. They produce reports, which if unclassified, are published on the web. Sometimes we produce standards, e.g., the Modelling and Simulation (M&S) standards being developed under a current effort. We also are involved in technology demonstrations when the technology is mature enough for an experimental prototypes or concepts that can be shown to potential customers (militaries in the Nations). We organize educational opportunities. Through lecture series and technical courses, we try to bring the work to audiences that might be interested based on the results of various working/task groups (i.e., Research Task Groups).

On our organizational chart, RTO is under both the Military Committee and to the Conference of National Armament Directors. This is due to the charter mandate to support the militaries and to produce technology that can be/is used in the armaments arena. Thus there are two main focus areas – military and armaments/technology. One organization, the Science for Peace and Security Committee (SPSC) produces civil science and technology between NATO and Partner Nations, mainly working with universities and Non-Government Organizations (NGOs) through initiatives that come from the scientists themselves. There is no connection to RTO; the main vehicle for NATO Nations to collaborate on R&D. Anyone can download an application for SPSC work if you have a NATO or Partner Nation colleague that you want to work with – mostly through Advanced Research Workshops (ARW).

The RTO organization chart has a typical structure for NATO, with a Board that defines policy, a number of Panels that deal with specific technology areas. Each Panel has a programme of work and organizes symposia, etc. This (NATO-Russia) Workshop is under the Human Factors and Medicine (HFM) Panel. NATO is not a hierachal organization. The Secretary doesn't determine the work to be done; the bosses are the Nations themselves. The committees consist of representatives from the Member Nations and others, including Russia and they determine the programme of work. Professor Krasnov represents Russia in the HFM Panel. Dr. Varus represents Ukraine. We have an evolving policy for dealing with Partner Nations, such as the Partners for Peace or Mediterranean Dialogue groups. Currently the policy is consistent with NATO guidance and the objectives of Research and Technology Board; that is, to support NATO objectives; to promote stability and security across the Euro-Atlantic area and beyond; and to enable a collaborative environment in which all NATO and Partner Nations can mutually benefit from each other's R&D efforts. Partner Nations include Sweden, Russia, Georgia, Finland, Austria, Ukraine, Switzerland, etc.

There is increasing interest in research in social sciences in support of COIN/Stability operations (behaviour sciences, psychology, human factors, cultural anthropology, sociology, economics) with participation from the traditional defence research communities as well as the broader research community. The key issue is how to operate in a multi-national environment. This is really a new direction in that the defence research community has not traditionally emphasized the social sciences. The United States

Department of Defense (US DoD) has recognized this and the Minerva program is an attempt to build up the social science expertise relative to defence and terrorism.

After 9/11, Russian President Vladimir Putin came to NATO Headquarters and it was agreed that NATO and Russia needed to set up collaborative work to combat terrorism. They held an ARW on Social and Psychological Consequences of Chemical Biological and Radiological (CBR) Terrorism co-chaired by Simon Wessely and Valery Krasnov in 2002. It addressed the psychological and societal impact of terrorist attacks, the assessment of factors that serve as mediators to exacerbate the impact (inadequate or exaggerated emergency responses, inaccurate information and false assurances, lack of public confidence and trust, uncertainty and controversy, worry, fear, rumours and hoaxes). They published “Guidelines on Risk Communication: How to Inform the Public, Inform Resilience and Not Generate Panic”. The NATO Russia advisory committee was disbanded in 2005 and it exists in virtual form currently ([nrforum@listserv.cc.kuleuven.ac.be](mailto:nrforum@listserv.cc.kuleuven.ac.be)). Another ARW in Lisbon in 2004 focused on Suicide Terrorism (chaired by Scott Atran and Ariel Merari). It included NATO and Mediterranean Dialogue Nations. It was a seminal meeting. The recommendations made by the ARW were for the RTO (HFM Panel) to follow up with a longer lasting activity. Subsequently, the HFM Panel set up HFM-140 focused on Psychosocial, Organizational and Cultural Aspects of Terrorism chaired by Anne Speckhard. The group has been working since 2006 and is working on a final report currently. It will likely lead to a follow-on effort.

There was another Task Group in 2003 – 2006 focused on Stress and Psychological Support in Modern Military Operations that was chaired by Yves Cuvelier (BEL) with participation from many Member Nations. The topics covered by this group included: preparation for deployment, psychological support during deployment, support after deployment and risk assessment. They developed standards for best practices, described in a final report available on the RTO website. HFM-145 held a Symposium in 2007 on Non-Lethal Weapons in Counter Terrorism: Human Effects, co-chaired by Michael Murphy (USA) and N. Obeziyaev (RUS). They looked at the effects of non-lethal weapons (e.g., during hostage taking) and began the discussion of how to set safety margins, and on the appropriate decision support tools for making the right decisions on using non-lethal weapons. One thing that came to light was that there is a tendency to start thinking from the non-lethal side and move to the lethal side in the West versus the reverse in Russia. The thought processes were quite different. We are working on a decision support tool for crowd control in another effort. The last research-related activity I'd like to mention is HFM-146 Medical Aspects of Military Operations in High Altitude Environments, chaired by Stephen Muza (USA). This group, begun in 2006 and continuing until 2010, is addressing altitude acclimatization, altitude sickness pathophysiology, guidelines for state-of-the-art practices for selection and training, acclimatization treatments and interventions. To conclude, the work from Partner Nations to the work of the NATO RTO is extremely important, especially in the area of counter terrorism. The contributions from partners (especially Russia) are important and complement the expertise of the NATO Nations. Also, terrorism is a worldwide problem and needs to be addressed by multi-national approaches.

## 8.1 DISCUSSION

*I'm happy to hear that non-traditional sciences are important in the way ahead. Do you have plans for a group to explore how we can focus social sciences on CT problems? We're waiting for proposals. If you have an idea, please speak with your Panel member. We need good proposals in this area. We need your expertise.*

*I got the impression that your tone was supported to present an analytical report. What are your views of the prospects of further collaboration, with Russia specifically? I don't decide what the content of the programmes will be. The science needs to come from you. The decisions are made by the Nations. If you have ideas, please write them up and provide them to Valery Krasnov, your representative. If there is nothing coming from the scientists, what can I do?*

*In NATO, you have the medical committee. Whether scientific points belong to your competence or to the medical committee? In the programme aimed at the improvement of personnel capability at altitudes higher than 5000 m, there is no Russian expert. Why? Russia was invited to contribute to high altitude work. I've spoken to the Ambassador and have tried to find an expert, but haven't found one. We don't specifically invite people; it's an inclusive process. Russia would be very welcome. NATO has a large number of medical committees. The Joint Medical Committee coordinates the work of NATO and Partner Nations in civil medicine. That's the most logical connection for you (to Sergei). There is another committee, COMEDS, the Committee of the Chiefs of Military Medical Sciences in NATO, where all the Surgeon Generals of the NATO and Partner Nations meet to coordinate policies. There is a formal Memorandum Of Understanding (MOU) signed between HFM and COMEDS and they're working on something similar between HFM and the General Medical Council (GMC). If COMEDS wants to initiate a research activity, it goes through HFM and the arrangement with GMC will probably be similar.*



---

## Chapter 9 – BATTLEMIND RESILIENCE TRAINING OVERVIEW

**Dennis McGurk (USA)**

The Battlemind (BM) training system is the US Army's resilience training system. BM Training is a comprehensive integrated psychological training program targeted for the entire deployment cycle. It is being scientifically validated with current research.

We begin in the first week of basic training through the point where commanders take control of battle commands. The system includes pre-deployment and post-deployment. The goal is to help the soldiers face the demands of combat with courage, confidence and resilience. Warriors are the target audience (but the Navy and Marines have their own training for this and the Air Force is adopting Battlemind). It is important to take care of warriors' mental health post-deployment with their families, leaders.

The principles used are for any training – for any operations – not just terrorism, but stability operations, etc. The focus is on the individual's strength, to prevent problems, not just dealing with problems after they occur. It is based on research as well as experience, using examples warriors can relate to. The major principles of the system are that it is strength-based, evidence-based, experience-based, explanatory and team-based. It is team-based in order to enable teams to discuss what will happen on missions prior to deployment and to facilitate discussion throughout – with actions they can take personally and to help their teammates with specific actions and behaviours to help, use group and buddy aids at the platoon level. The system is action focused, integrated into military culture and timed to appropriate phases in military life cycle since stress varies in pre-deployment, post-deployment and during deployments.

We start to build resilience at the start, at Basic Training at Ft Jackson, to give skills they will need throughout their military career. We want to give them the skills to build resilience. There are modules designed for leaders, beginning in the first leader course (for new sergeants and new officers). Then, there is intermediate Battlemind training in the appropriate courses (for Non-Commissioned Officers (NCOs) and Captains) and then advanced Battlemind and Command Level training. Each of these phases of training is very different. We don't show numbers as often to the junior military, but the senior military want to see them. All soldiers are required to have Battlemind before deployment, then debriefing with Battlemind principles after critical events or time-driven milestones (at 4 months and 8 months to process the events during periods), then post-deployment Battlemind training in their first week home. Mental health problems tend to emerge in first 6 months after their return from deployments. Right after, the focus is on safety and common problems (sleep problems). Three to six months post-deployment the focus is on normalization and identifying signs of problems (e.g., drinking to get to sleep) and understanding strategies for helping buddies, these are Battlemind "checks".

There is a course for health providers – medics. There is only one psychologist for every 3500 soldiers versus one medic for every 50 soldiers. We teach the medics signs to look for and referral techniques. There is also debriefing of providers after deployments. Training is provided for families as well. Some soldiers change a lot during combat. The training for spouses is held both pre- and post-deployment and teaches them how to be independent, how to reintegrate.

We are scientists; therefore, we do validation of the one-hour training with group randomized trials. One platoon gets Battlemind training and another gets a control training course (e.g., military history training) and then follow-up with the individuals three to six weeks later. Dr. Amy Adler has published research on the setting/group size used in the training (e.g., small group versus large auditorium). Battlemind has been shown to be better than stress education. We reinforce that warriors are not unique in having (mental health) problems. The effects of just one hour training were significant. The normal pattern

for soldiers is that the more events experienced, the more likely they're to have mental health problems (PTSD, sleep problems, depression, etc.). Battlemind trained soldiers did not exhibit the typical pattern and experience reduced mental health stigma.

The Battlemind system does not prevent PTSD – but does reduce stress and then makes it so those that need help can get it. The replication study involved 1500 soldiers with Battlemind training their first week back and then four months later, with both large groups and small, and stress education (as a control). One key thing that Battlemind trainees express is the feeling that the Army cares about the soldiers. There is a “booster effect” for Battlemind training at 4 months and 6 months after deployment (with a survey only). We found, regardless of experience, that those with Battlemind training at 4 months (post-deployment) were doing better than those without Battlemind training. Significant differences were seen on the PCL scale (Robert Hare's Psychopathy Checklist Revised, PCL-R, is a diagnostic tool).

We are evaluating all the training, pre-deployment, during and post-deployment. The Australians are also conducting training of the Battlemind system. There is a United Kingdom replication (validation) study of the Battlemind post-deployment training. We are exploring augmenting Battlemind training with mindfulness training. Soldiers in the Reserves complete their training (post-deployment) by telephone because they go back to their civilian jobs right away. We are interested in assessing the efficacy of in-theatre psychological debriefings. Other enhancements to Battlemind training being explored include an assessment of intrusive thought control training as well as the practice of expressive writings to help both soldier and spouse. We are also exploring giving advanced Battlemind training for units with lots of combat experience (e.g., giving six hours of Battlemind training instead of one hour). We are working with other countries to share ideas: United Kingdom (replication study as well as an assessment of translated training), Canada (exploration of Battlemind during Cypress decompression), Australians (e.g., developed basic combat training study), Baltic (Battlemind program development), as well as participation on NATO Research Task Group under the Human Factors Panel, HFM-104 (chaired by Carl Castro (USA)).

The Battlemind website is <http://www.battlemind.army.mil>. All soldiers and providers have access to the website and can get the training. The website also provides the ability to relook at the material after receiving training. Some Battlemind material may not be available to those outside the US – please ask if you are interested.

## 9.1 DISCUSSION

*(Tarabrina) What is the training of the specialists who conduct the Battlemind training (are they psychologists, social workers)? It's known by researchers that when dealing with PTSD there are biological prerequisites. How can you use this information to diagnose those that come for training (trainees, etc.)? How do you differentiate the responses? Can you predict the further development of the PTSD symptoms in the vulnerable group?* Our professionals all do the normal civilian training, and then they go through special training when they come into the military. In addition, all providers go to a course entitled, “Combat and Operational Stress Control”. It's required before deployment and taught by those who have deployed. For providers, the course is tailored to teach them how to communicate with soldiers and leaders and establish expertise.

*(Tarabrina) My second question is related to differential diagnostics – those who are prone and stable.* The Army has a routine screening program – there are periodic health assessments each year and then warriors talk to providers before deployment too. Sometimes they make you take, i.e., deploy someone with issues, but they are monitored. With the biological markers, we don't have a way to predict who might have problems. Much is driven by an individual's combat experience. We do have the means to identify who we'll want to keep a closer eye on (leaders and peers can provide cues). When soldiers come back, they receive a post-deployment assessment and then three to six months later a reassessment. Sometimes, problems emerge after two years.

*(Tarabrina) There was a special study after the Vietnam War that looked at PTSD displayed by Vietnam veterans. Can you say after the Battlemind program and screening, etc., several years after the mission, will you get positive results in terms of decreased levels of PTSD? I'm referring to postponed and repeated evaluations. We've learned that we need to evaluate people after they come back. I hope what we're doing will result in less PTSD, but we'll have to see. We need to follow up.*

*(Shamrey) About the technology to measure stress before and after mission. Do you have equipment/instruments beyond surveys? Do you have aspects of stress – is it typical to see alcohol and drug addiction? Are there different versions of Battlemind for pre-training and the different military specialities? A differentiated approach to soldiers and leaders is needed. Servicemen often don't want to give interviews or talk freely, is this accounted for? Is there a difference in military specialties? In Estonia, Latvia – was there any training for the Georgian military and, if so, how do you assess the efficacy? All soldiers are required to do ANAM (Automated Neuropsychological Assessment Metrics), a neurological test. This may not have the resolution to detect stress; it's more applicable for the detection of brain injuries. It may not detect if there is a concussion or not. There are certainly a few cases (of individuals) with drug and alcohol problems. We hear about self-medication for poor sleep and/or stress. We train that that doesn't help. We train to look for signs of problems (family problems, work problems). In terms of specific military specialty vulnerabilities? It's really more a factor of the level of combat experience. Special Forces personnel see a lot of combat, but they have few mental health problems due to selection, screening and extensive training in resilience; they are resilient to start with and then they get additional training. Otherwise, it depends on combat experience. We can't identify what the other factors are (childhood experiences, etc.). Also, we also have realistic training and Battlemind training to prepare the soldier. What are the criteria of efficiency? We measure the number of servicemen that don't display PTSD. We assess using clinically validated scales for PTSD, measure anxiety and depression using the Patient Health Questionnaire, or PHQ, look at morale and cohesion in the unit, alcohol use, family functioning (e.g., marital problems).*

*(Varus) Who is responsible for the training of Battlemind in the Army? In which detachment of the operational plan is this Battlemind training specified? Training Doctrine Command (TRADOC) does life cycle training. Chaplains often do deployment training. However, it is up to the commander who gives it; sometimes it is a behaviour health/mental health professional. Often it is useful to have a combat veteran help the mental health person give the training. This starts the dialogue of how do I prepare for combat and deal with casualties? How do you prepare leaders to write the letter about a fatality? We are now getting better at preparing mentally. We have specific operational orders that mandate the training and it depends on the commander when they (the soldier) get the training.*

*(Varus) Battlemind is not listed in the content of the Joint Operation Plan. The Surgeon General of the Department of Defense (DoD) has quick response teams to take care of mental stress. It is the main unit responsible for providing stress education. What kind of training do these quick response teams provide? I don't know. This is an Army program, not DoD wide. I know what [kind of training] Quick Reaction Teams (QRT) receive.*

*(Varus) What's the role of the family in pre deployment training? Is this separate? We have special training for spouses, sometimes separate from the military member, sometimes together (prefer this on communication skills, etc.) for pre- and post-deployment.*

*(Rybnikov) How do you measure the Battlemind? What is the methods/measuring tape to measure morale, the mind? How do you measure if the mind is ready for battle? We measure by performance and then by assessment of mental problems after deployment.*

*What's the level of suicides? Do you use [the number of] suicides as a criterion? No. We assess suicides in theatre, but the training is not designed as suicide prevention training. I'm not aware of scientifically validated training for suicide prevention. It is the highest suicide rate ever this year, but this is a difficult problem to prevent and Battlemind is not designed for this. We have other training for this.*



---

## Chapter 10 – DERADICALIZATION/DISENGAGEMENT STRATEGIES: CHALLENGING TERRORIST IDEOLOGIES AND MILITANT JIHADIS

**Anne Speckhard (USA)**

I've been studying terrorists and extremists for years now trying to understand their motivations and what puts them on, and can take them off of, the terrorist trajectory. In regard to Chechen terrorism, I worked with Nadya Tarabrina after the Moscow incident with the hostages and then worked with Khapta Akhmedova developing psychological autopsies of Chechen suicide terrorists by interviewing their family members and close associates to learn about their life history and what events and experiences led to them becoming terrorists. I also made field research in the West Bank and Gaza studying suicide bombers again using the psychological autopsy method. We spoke with mothers, brothers, sisters, friends and asked, "When did they change?" "What signs did you see?" "What about the last will and testament?" I also interviewed terrorists their family members and their associates, their hostages and their supporters in the United Kingdom, Belgium and France, Lebanon, Jordan, Iraq and Russia. My research is based on interviews and case studies and analyzing basic statistics. My talk today will be on prison deradicalization efforts: looking at attempts by various Nations – including my own – to design and carry out programs in prisons to take individuals off of the terrorist trajectory.

In most countries today, the prisons can't deal with the current situation, they are filled with criminals, and disenchanted people and it only takes one person to start militant jihadi indoctrination in prison. A key example is Abu Musab al-Zarqawi who started out as a thug in Jordan but who became radicalized in prison and later became the leader of AQ in Iraq. There are several prison rehabilitation programs – in Saudi, Iraq, Yemen, Singapore, etc. The Yemen one was the first one, started in 2002. Clerics wanted to address jihadi prisoners and went into prisons and discussed ideology with prisoners. Many prisoners changed their minds after these discussions, with 360 prisoners in all. These programs depend on discussion, gentle and respectful, but the results are dubious, i.e., not as good as the claims.

The rehabilitation program in Saudi Arabia, started in 2004, is focused on internal threats. It began with religious dialogue with respected clerics ("kingdom scholars"). After awhile, they realized they needed to add psychological counselling and art therapy. Those involved are respectful – there is no coercion and they involve family, provide financial support and assist in arranging marriages [for program participants]. It was believed that married persons were less vulnerable to become militant jihadis, but it should be noted that there were militant jihadis from Saudi Arabia preaching that it was important to have a family prior to going on a suicide mission, but that a parent can sacrifice themselves because they've served their purpose, i.e., had a marriage and family. The four to eight week program requires that someone vouch for the prisoner. The Saudis are claiming 80 – 90 % success rehabilitation rate. However, the program is aimed at those caught with propaganda, so they're dealing with "lightweight" jihadis and they're easy to turn. They're not working as effectively with hard-core individuals. These Saudi clerics were asked to go to Guantanamo to rehabilitate prisoners there; they said, "No, we can't turn them". Success wise, they've had some notable failures (e.g., Said Ali al Shihri).

Egypt has had an interesting path to developing counter-radicalization programs. In the last part of the twentieth century, they experienced Muslim insurgency, coordinated uprisings, and assassinations, including Sadat. Since the 70's, many militants were arrested, endured torture in prison and in prison they self-educated about Islam. Those militants who were released or evaded prison left Egypt, (some for Russia) and of these Egyptian expats some became the basis of Al Qaeda (AQ). Their leaders concluded that after many arrests, imprisonments, torture and executions that radicals can't fight the state, so they needed to fight the supporters of the state and they widened their efforts to attacking the US and western powers.

We must understand how important a role torture can play in hardening individuals into the terrorist movement. Last year I was in Egypt and interviewed a Salafi cleric, about the torture he endured five years ago after his arrest. It was really bad. He wasn't violent but did preach against state officials who violate the Quran in their lifestyle choices. Some of the original AQ leaders were former prisoners who radicalized and participated in jihadi groups initially due to social repression and torture. But on the other hand, torture of those who spent long years in prison and never left Egypt may also have broken them. We have now Egyptian militant jihadis who after long years of imprisonment became disenchanted with terrorism. Originally they wanted regime change but they were not in favour of mass killing of civilians. After years of imprisonment some of these concluded that their followers on the outside had gone too far and were killing far too many innocent civilians and had gone off course. First Jemaah Islamiya (JI) in Egypt declared a ceasefire, reneged on their extremist views. They organized large groups in prison. They recanted and taught their followers the proper interpretation of religion. Then in 2007, the Al Jihad leaders followed suit. Some other leaders may have influenced them. They are more closely affiliated with AQ. Al Sharif, who is really respected among militant jihadis, wrote a book about being wrong which deeply challenged Al Qaeda because formerly he had been an ideological leader. Ayman al-Zawahiri wrote a counter-argument book, claiming that the use of electrical torture had coerced these individuals into disengagement. Al-Zawahiri may be partially right although after enduring torture it appears these groups acted of their own accord in renouncing terrorism.

Malaysia has a [prison rehabilitation] program that teaches from the Qur'an. While their spiritual counselling is very authoritative, they also engage in beatings. In Uzbekistan, prisoners have died rather than renounce their beliefs. These programs rely on strong surveillance for monitoring rehabilitated prisoners after their release. Singapore started a prison rehabilitation program in 2002. Rohan Gunaratna, who lives and works in Singapore, has been very active in setting up deradicalization programs globally. He teams with Ustaz Mohammed bin Al (trained in Egypt). The Singapore program is based on Islamic counselling and financial provisions (jobs for wives and prisoners on release) and weekly [maintenance] meetings after release. Their claims of success are high but "small n" [i.e., not many prisoners who have participated in the program] and due in part to the existence of a controlled society. The successes were not serious jihadis (they were plotting, but...).

Indonesia has a rehabilitation program. It is unique in that it uses former militants to talk to the prisoners, as scholars are not seen as credible. Nasir Abbas, who trained those who carried out the Bali bombing, became disenchanted with civilian deaths. He believed that it was OK to fight in Afghanistan, but not to bomb a nightclub. He argues with jihadis. Sidney Jones, of the International Crisis Group, says the Indonesian program is moderately successful.

The United Kingdom has a new program, started in 2005 – 2006. The clerics, who are Salafi, are respectful, gentle and work with converts to Islam, identified by prison authorities, discussing Islam. The clerics focus on enabling a critical examination of the prisoner's understanding of Islam – if is it correct or not. They believe that if you know how to examine a text and learn what is truly Islamic and what is not, the successes in terms of rehabilitation will come. The program needs a psychological component.

In Iraq, I was involved in the design and start up of a detainee rehabilitation program at Camp Victory and Camp Bucca with 23,000 detainees, including 800 juveniles. I was responsible for the design of the treatment aspect of the program which was both psychological and involved Islamic challenge. The program developers were challenged by military requirements balanced by what was needed to change the detainees. Initially, the military found militant jihadis in 5% of the prison population (AQ type philosophy) – mostly Sunni Muslims competing for resources who were angry and trained and easily co-opted by AQ to engage in sectarian violence. Some prisoners were picked up in (arrest) sweeps, not all of them were radical. A program with half day of psychological counselling [developed by Speckhard and her team] and half day of Islamic counselling [developed under Speckhard's supervision by clerics] was utilized in the Iraq program. The developers made lessons, anticipating the counter arguments to the militant jihadi point of

view. It was a huge challenge to run the program in a conflict zone. The Qur'an does say it's OK to fight occupiers, but Muslims are supposed to refrain from violent activity if too many will be killed. Many of the radicals believe they can work [cooperate] with the US, get the troops out and then reorganize. One of the additional challenges of carrying out a rehabilitation program in a conflict zone involves releasing prisoners back into chaos. There were sharia courts in prison; therefore, prison participants couldn't be sent back into the prison population because of the personal risks. Speckhard referred the participants to recent papers she has written on the experience for a more in depth analysis (e.g., Speckhard, Anne (2010) "Prison and Community Based Disengagement and De-Radicalization Programs for Extremists Involved in Militant Jihadi Terrorism Ideologies and Activities" Pre-publication Version – Conflict and Terrorism found at [www.AnneSpeckhard.com](http://www.AnneSpeckhard.com)).

In terms of psychological issues, there were many prisoners that had experienced trauma. Many had experienced brutal arrests, and/or had family members and/or friends killed and/or tortured. It is important to address the traumas and psychological vulnerabilities that make one susceptible to being recruited for jihad, motivations – especially to ensure they won't reengage in collective violence – after prison and reorient their sense of self-efficacy. The program needs to be tailored to treat separately: extremists and those that aren't extremists and kids. All the program participants were warned about admission of crimes as that could end in them being sent to the Iraqi prisons, ethics were clear and important. The developers put a school program together for detained kids including sports, school and counselling. The length of the program, six weeks, was dictated by the military and group counselling was necessary in groups of ten due to the large numbers involved. The outcomes [success rate] are preliminary and not necessarily proven, but the program did result in huge releases of prisoners (6000 in 2008 with only 12 rearrested). It's important to keep in mind the political situation may be as responsible for the lack of re-arrests as the program itself. Based on interviews with detainees, there are issues with program maintenance. Also, we need to think about strategies for Internet, communities and military (screening, education and support) for deradicalization.

## 10.1 DISCUSSION

*Have you been in contact with the Norwegian Police Academy that has dealt with radicals, jihadis, Nazi?*  
Yes thank you, I am aware of the book in which this is mentioned. The book talks about Nazis, etc., and applies to radicals in a general way.

*There have been studies on deradicalization, but an exit strategy is needed, especially for those who are not so ideologically committed. They are there in prison because they are on the street, etc.* I have a paper that is much more in depth on these topics. We need to think about whether to offer amnesty or not. We need to think it through. If we keep people in prison, they get radicalized. With amnesty, the victims aren't happy, but we need an exit path.

*Since the new Obama administration and the debate about what to do about the prisoners – there are different categories of prisoners. At the same time, the US is building a new prison in Afghanistan. Is that your new effort?* No, I am no longer involved. The military works through contractors and that was a very difficult issue in Iraq as their goals differ from those of the military – one is working for money, the other for ideological change. Many in the military believe that we can't change the extremists. I don't believe that. I like to see what works to reach them. The cleric I was working with was former AQ and he said some of these radicals need a psychologist, and even asked to see me. I don't agree you can't reach them – they're very passionate and can be reached. You must hook them in the treatment with the same passions and concerns that brought them to joining AQ and other terror groups. What about those doing it for money? How do you reach them? In my opinion they are more difficult. Some in Guantanamo can't be turned. Guantanamo is bad for the image of US. If they keep it open it can be exploited by the militant jihadis.

*Do you rely on mediation? Do people go to prisons in Islamic countries (is this only applicable there)? There are some prisoners in Romania, Poland where there aren't Islamic scholars. How do you deploy*

*your program without knowledge of ideology?* Are you referring to the “secret prisoners”? I have nothing to do with them. Soft and hard torture is in my opinion not useful – people make stories up and AQ teaches people to make up false stories and withstand torture. Some prisoners said they didn’t break during torture. Just as often you get good results from good treatment. In our group some had asked for medical treatment but were ignored. When they finally encountered a caring interrogator, they turned. We have to be psychologically savvy and understand what is important to them – what brought them into this in the first place, what their concerns are now as well – for their families, their country, and for themselves. Then we can begin to move them off their extreme ideological stance.

---

## Chapter 11 – RESILIENCE AND RADICALIZATION

**Albert Jongman (NLD)**

I was asked to tell about the Netherlands. I will start by talking about a documentary shown in the Netherlands in May, during a commemoration of World War II, an interesting film about an 80-year-old man who took part in the Dutch resistance. He killed a man and now has doubts if the killing was for the right reason. The man he killed was said to be a traitor by the head of the group (based on a rumour). They took him to an isolated farm and killed him. Now, in the last stages of his life, the killer had doubts. He looked in archives to find information about the victim. During the search, he found no incriminating evidence. He concluded that he killed based on a rumour. He decided to approach the family of the man to apologize. The family had never found out what happened to their relative. They had suspicions that he was sent to a camp. They had hired a private investigator. For 65 years, they didn't know what had happened. What is the lesson? 65 years later – people can try to find out what they've done and bring to closure their troublesome acts. People in armed conflicts may have the same issues – and it can take your whole life to process (the experience). Also, you can learn from your mistakes. He learned, apologized and came to closure. The Defence Department found the remains and they reburied them. What does this mean for current conflicts? World War II was perceived as an occupation. At first the resistance was chaotic, but later it became organized. Resistance groups stole rations and distributed them to the poor and participated in political activities. It is no wonder that we see the resistance activities in Iraq and the engagement in terrorist activities. How long will it take for these people to process what's going on?

I will talk about Dutch experiences with terrorism, approaches to terrorism and then findings. In terms of the experience in the Netherlands with terrorism – the Netherlands is very peaceful. Only in the late 70's, there were people from Indonesia, Malaccans, 2<sup>nd</sup> generation, who took hostages, and conducted kidnappings. The Dutch government deployed military forces to deal with a situation in which hostages were taken on a train – this was traumatic for the government. The Prime Minister gave a press conference and viewed the deployment as a failure. The Dutch government chose, at that time, to counter terrorism using social-psycho and social-economic approaches. They did three things. The Malaccans wanted an independent state. The Dutch government gave them a plane ticket to go there and see what it was like and they came back disillusioned. So, they decided the situation in the Netherlands was much better and they wanted to stay. This effectively took away an important grievance and the desire for an independent state. Another grievance was due to the fact that the Malaccans were housed in old army barracks, a bad-housing situation. The Dutch government improved this situation and took away the grievance. The third thing regarded employment. At the time, there was discrimination; therefore, affirmative action-like policies were put in place to selectively hire Malaccans for a while. Also, the Dutch view of the conflict was the only one known. So they wrote a study from the Malaccan view of the conflict as well.

These same strategies are being used against radical jihadi threats. There is lots of debate about counter-terrorism policy in the Netherlands. In 2003, a big decision was made – they reorganized and also appointed a Counter-Terrorism (CT) Coordinator, with a staff of about 80 people. One of the things developed by the CT coordinator: a public relations campaign by the government to inform people about the threat of terrorism. There was discussion as to whether this should be a one time or long-term campaign – they chose the latter – on radio and TV. This campaign has been successful, based on the results of a survey assessing the level of fear. The level of fear was high in 2005; however, now only 8% of those surveyed think terrorism is the biggest issue now – they are more concerned with the economy and jobs. This is partly due to the information campaign.

The Counter-Terrorism Info Box is a collaboration between military and police. Prior to this, there were issues about sharing of information on suspects. Agencies had only partial information and did not know what was available in other agencies. They started a cooperative effort to create a complete dossier based

on information available in all agencies. This results in more complete overviews of all suspects and enables the creation of individual strategies for what to do – deport the individual (if he is not a citizen), arrest them for violations, etc. Also, they would in some cases let the person know that they were following them; however, this was deemed to violate the privacy of the individual and was stopped. Some of the suspects had violated immigration laws, so some were deported. Another counter-terrorism strategy involved the complete reorganization of strategic levels of government – those organizations responsible for the protection of Dutch society were divided into thirteen sectors: oil, banking, harbour, nuclear, etc. The goal was to enable/encourage them to all talk together and discuss and come up with strategies, counter-measures; however, there are issues in terms of trust and information sharing between departments.

Another thing the CT Coordinator did was to formulate some generic attack scenarios with responses and responsibilities for different agencies. The first crisis they had to deal with was to deal with backlash from an announcement of the release of a provocative video called “Fitna” by Geert Wilders, a Minister. [Note: This video is a short (approximately 17 minutes) that shows selected excerpts from suras from the Qur'an, interspersed with media clips and newspaper cuttings showing or describing acts of violence and/or hatred by Muslims. The film attempts to demonstrate that the Qur'an motivates its followers to hate all who violate Islamic teachings. A large part of the film focuses on the purportedly violent and negative influence of Islam in the Netherlands]. The government took counter action. They had months to act and so much debate had occurred that people became tired of the subject before the film was even aired. The video had a big impact internationally – Al Qaeda wants to attack the Netherlands to retaliate. There were plans to attack the Dutch embassy in Islamabad but it is not known if this was a onetime deal or if a series of targets were planned or if they will send people into Europe to attack. There have been indications of people sent from Pakistan to Europe to execute attacks in Europe. The “Fitna” crisis experience demonstrates that, with government counter-strategies, it was possible to downplay the impact of the video. Another video is planned next year. He [Geert Wilders] will continue to provoke Muslims with his videos. He is seen by some to be a hero due to his actions protecting “freedom of expression”. He developed relationships with conservative Americans, some of whom he got funding from, and Danes. He has stated that, “10 of the 53 Million Muslims in Europe should be kicked out”. He exploits frustrations of some in Dutch society since the murder of Pim Fortuyn, a politician who formed his own party and was assassinated by Volkert van der Graaf who claimed that he did it to stop Fortuyn from exploiting Muslims as “scapegoats”, and Theo Van Gogh, a film director who was assassinated by a member of the Hofstad group, a militant jihadi organization.

The government is seen as weak in terms of their response. The recent election was an opportunity to build this constituency. Geert Wilders was one of the big winners in the election – a signal to the current government that they’re not doing very well and need to change. The elections were exploited for other reasons. MP Wilders says he’s going to be the next PM in the Netherlands. He will get significant support in the next election, which will result in significant changes in the government. There are only 16 million Muslims in Europe, not 53 million as he claims. I believe Wilders was referring to a German website which had the number of Muslims in Russia to be 25 million and these are citizens. He is being protected by Dutch security, as Mr. Wilders would be a likely target of a retaliatory attack (by AQ, etc.).

In terms of terrorism research in the Netherlands, the CT Coordinator has a budget; however, he has trouble spending the money. They fund only three to six month efforts that are policy oriented, no fundamental or basic research projects have been funded. Because of the murders of Fortuyn and Van Gogh, the Dutch society is regarded as a laboratory for radicalization. Kluwer published a 1000 page volume on terrorism summarizing research on terrorism, deradicalization and radicalization. It is only available in Dutch right now and is the best summary of terrorism research in the Netherlands. We have been participating in a European Union project on radicalization for four years that has produced lots of background papers. There is information on this project on website <http://www.transnationalterrorism.eu>. This website is very useful – you should check it out. There are a number of research institutes with reviews on radicalization, etc., such as TNO and Crisis Research Team. A former colleague, Ronald Sandee of the NEFA Foundation, wrote

a piece entitled, “9/11 Finding Answers”. They have collected legal files and published what’s available on terrorist subjects, compiling profiles on them. The information includes field interviews with jihadi organization leaders. This is a private organization and some defence organizations, including intelligence organizations, are using their information. They are thinking of making the website subscribers-only – I believe this will happen soon. Unique, in terms of information, are the videos that you don’t find in many places and dossiers.

I will make some closing remarks on policy regarding PTSD. The Netherlands is active in peacekeeping operations; therefore, they have a growing group of veterans with PTSD. The government didn’t do much initially, but they now have a policy to screen pre- and post-deployment. Previously this was voluntary, but is now mandatory. That is a positive development in terms of veteran policies. Also, now on Veterans Day, veterans from other missions other than World War II are included (a sign of more attention to veteran issues). Because the government is now paying more attention to PTSD, it is likely to fund more research on this. It was mostly the work of independent journalists writing about military members who acted out violently against their families that brought the PTSD issue to light. The government had to introduce a new policy and program to deal with PTSD.

## 11.1 DISCUSSION

*Who were the four countries that were seen as provocative by AQ? Denmark, Norway, Sweden, and the Netherlands. This is seen as a way to justify attacks against the West.*

*(Danielsen) Norway was a target before this video incident. Ideologists from the Balkans, Norway and US will be on the list. We’re so friendly; he (Bin Laden) must have mixed up Norway and Denmark. How can we be a target – there is denial...*

*(Wientjes) A comment to Berto (Jongman). In every country, it is quite possible that countries have priorities in state activity. There are attempts to follow up on potential threats. This is against human rights. But if they are involved, then the priority should be on human life. If they are intent on murdering people, we have to prioritize legislation to protect civilians. It is difficult to judge if western European governments are ready to make such comments to their legislators. It is my opinion that individual human life should be fixed in legislation. Other rights for human life, privacy, religious beliefs – these are secondary priority. In the United Kingdom, they have special control measures if the individual hasn’t violated a law, they can be monitored – they can’t be prosecuted but they are monitored since they are seen as a threat. Different countries deal with these situations differently. With Abu Qatada, a UK citizen was kidnapped and the captors demanded Abu Qatada be released and when this did not happen, the UK citizen was killed. It is the same with the Guantanamo prison run by the US. Some prisoners couldn’t be prosecuted, so they created military tribunals to prosecute them, but this is the debate as to whether this is the right way. Also, how should we prosecute people if the information was obtained under torture? This is a legal issue as well.*

On the subject of Guantanamo prisoners: The military are not trained to collect forensic evidence, so now we are training them so they can assist people being prosecuted and thus ensure the prosecution will stand up in court. In many cases, they are certain that the person did something wrong. Abu Qatada was in prison and inciting violence. In some cases, they knew they were guilty but could not prove it in court.

There is a new development of “law fare”, meaning that jihadi organizations or jihadi ideologues exploit western legislation to get people released and to protect their supporters’ activities. For example, in the book entitled, “Alms for Jihad: Charity and Terrorism in the Islamic World” written by J. Millard Burr and Robert O. Collins, the names of the “golden chain” were listed – financiers for jihad – they were all found in the office of an NGO in Sarajevo. The writer of the book was charged with libel and the book taken out of publication. Others that have researched finances and they have been sued. So it is a deliberate tactic to counter negative publications by exploiting western laws that they can twist in their favour.



---

## Chapter 12 – RESILIENCE IN MILITARY AND DIPLOMATIC PERSONNEL ENGAGED IN COUNTER-INSURGENCY AND COUNTER-TERRORISM OPERATIONS

**Gino Verleye (BEL) and Anne Speckhard (USA)**

The idea behind this study was to explore psycho-social resilience in a high threat security environment among military and civilian personnel serving in Iraq. We wanted to measure what was in the people's minds, their fears. This was not a big study; it was only a pilot. The insights from this study are interesting and provide a step forward to a bigger project. We used questionnaires prepared by Anne Speckhard, designed to measure PTSD and other factors. The subjects of the study were soldiers and diplomats. We used information technology and programmed the questionnaire so the subjects could respond on-line. Using this approach, we were able to rapidly collect data on 600 variables. All that was required for subjects to take the survey was access to a personal computer and high speed Internet access. The amount of information and data collected and analyzed is huge. Unfortunately the Internet was so slow in Iraq that we had to abandon the website and move to e-mailing an electronic survey for them to fill out. That was unfortunate as we originally had 200 respondents who agreed to participate but the Web pages were so slow they could not complete the survey.

Looking at the profile of the respondents, you can see who is eager to respond and who is not. We asked questions that resulted in qualitative and quantitative information. The subject sample is relatively small – 53 people between the ages of 27 and 63 with 9 active duty military and civilians, 38 males and 15 females, 18 single, 28 married and 7 divorced. The subject pool was based on a snowball sample. The introduction of the survey had information about the purpose of the study and a request for honest responses stating that we are university researchers and have no relationship to the military. The survey took less than half an hour to complete. No names were gathered for confidentiality. Subjects responded to their psycho-social reactions to experiences like suicide bombing, murder, being fired upon, etc. They were asked if they were personally involved, witnessed in person, heard about the event(s) or saw them on TV. They were asked how many times you experienced these events. In addition, the subjects were asked about the intensity of the experiences – the strongest reaction as well as about their initial reaction to events and their current reaction.

The analysis of the data was simple since this was an exploratory study. We measured the frequency of reactions. A significant portion of the sample had acute stress responses and these transitioned to longer enduring post traumatic stress responses for some, but in general the post traumatic responses diminished over time so that the sample presented more deeply affected immediately after the event than in the current time period. Examples of these responses included intrusive flashbacks, avoidance, trouble remembering, feeling alienated, avoiding reminders of the event, trouble concentrating, being easily agitated, trouble functioning in work and relationships, etc. In addition to acute and post traumatic stress responses we also found many with psychosomatic problems, panic, depression with symptoms including becoming excited by danger, increased fearfulness, having stomach distress, being terrified by death, etc. One subject admitted considering self-harm and suicide in response to the high threat security environment.

In terms of more significant response levels, respondents indicated "yes" to questions asking if they became much more negative about Muslims, became jumpy, felt the world is less safe, found it hard to sleep, found it hard to detach, becoming emotionally numb, tried not to think of it, thought local Iraqis are dangerous and that Muslims are becoming dangerous, became detached, felt increased levels of fatigue, tried to cope by distracting myself, were uncertain about the future, felt vulnerable in public places. Significant numbers of respondents also replied that they tried to look for meaning in these events (not always negative), felt a sense of increased love for those around them, felt it was important to get in touch with loved ones, thought that talking about the attacks helps, were afraid they would be a victim of

terrorism, felt that there is a big chance that a terrorist attack will take place where they work or live, said they hold onto their faith in hard times, believe they are protected by a higher power, don't like to depend on others, believe people are generally good, believe they are in control of my life, expected to encounter violence, said they look for creative solutions to problems, are satisfied with themselves, and are confident with their ability to handle to hard times.

Even on a small sample, we see some correlations. To look for relationships between PTSD factors and intensity of feelings, we coded four variables: Personally Involved = 4, Witnessed = 3, Heard about it = 2, Witnessed on TV = 1. The results of a correlation analysis showed that the higher the personal involvement with a high threat event, the more they tended to avoid danger afterward.

We also checked for significant factors, performing Eigen analysis [a method that tries to identify the most salient factors or dimensions that fit some data]. This resulted in the identification of a few factors/dimensions with very high information:

- Dimension 1 – jumpy, can't sleep, distracted (which one would see as the high arousal aspect of PTSD).
- Dimension 2 – panic attacks, world is less safe, experience was traumatic (trauma- panic).
- Dimension 3 – headaches, dizziness (psychosomatic).
- Dimension 4 – sad, less trust (loss of belief and subsequent depression).
- Dimension 5 – considering suicide, hurting myself.

In conclusion we can say that it's possible to conduct a remote survey in a high threat security environment, although we did have to modify our method given the trouble with Internet speed. Likewise we found some very interesting responses showing that both military and civilian populations are affected by being in a high threat security environment but we see that their immediate responses are stronger than they remain overtime, which is a good sign. We recommend repeating this type of survey, but focus in the future on a shorter questionnaire with links to information on care and increasing resilience and use this for monitoring and benchmarking.

If I look at the future, we need to define a multi-country, multi-cultural project. We have a lot of good items; we have analytical software, benchmarks and best practices based on the lessons learned.

## 12.1 DISCUSSION

*(Tarabrina) Can you define how you measured PTSD? Did you use standardized measures? The flashbacks – usually they are very important in assessing PTSD and how about arousal states, sleep disturbance, depression? There is also the whole issue after a trauma of questioning reality of the future, uncertainty about future, another way of viewing the future. (Speckhard) Regarding trauma, the level of exposure is there; they feel under each day. The context is really 53 people who day-by-day have been confronted by bombings and killings, not sitting at desks, isolated, but people in the field confronting high threats in their daily work and living environment. We did not use standardized tests including those for PTSD because we wanted our survey to avoid making them feel that they were being psychologically tested. Instead we incorporated items from standardized tests that could give a good measure of the variables involved in Acute Stress Disorder and PTSD and about these as composite scores. But no, we opted not to use standardized measures in the interest of having more people feel interested in taking part in the survey.*

*(Tarabrina) You mentioned some used increased sexual activity to cope with PTSD, any ideas what that is about? (Speckhard) The easy answer may be that sex is fun. Typically when you have a stress response you have increased cortisone, adrenals, but suppressed sexual response. Perhaps to fight the arousal states of a traumatized state they go looking for this? We don't know if they had sex with partners or self –*

stimulation but again we didn't think it was a good idea to put a direct question about masturbation that most would not answer. In any case it's probably a factor of "self medication" using sex to deal with stress and trauma.

(Verleye) This data collection method is a monitor for a global project. In Flanders, the government wants to help seniors and have projects to help them to create a higher level of well being. The numbers of subjects are high. There are no big issues. The key is to compare cities in which they have experienced terrorism with those they don't – is there a difference and to look at the added value of the projects.

(Tarabrina) *I would like to not contradict, but debate with Anne that sexual desire is hedonism to get rid of painful recollections. It is also dehumanization – it is a plain act without distinction. It is dehumanization. It might be a manifestation of PTSD.* (Speckhard) That's very perceptive and may indeed be the case.

(Wientjes) *At least for the military, the sexual activity is breaking the law – high risk behaviour common after trauma. Research has shown that anything that threatens your mortality, you engage in behaviour to extend it – to procreate. At a deeper level, your mortality has been threatened so you are responding to that.*

(Speckhard) *In terms of sexual activity we don't know if it was or was not with partners, it may be in the shower alone – self-stimulation – so it may not have been illegal.*

(Tarabrina) *In approaches, we have a main conception of PTSD. It is formed in American psychology and sociology. What about a more complicated conception? We refer to a broader range of symptomology and dynamics. In many cases, the flashbacks went out (disappeared), but the abrasive anxiety and personality changes became the main symptoms. High alcohol consumption became one of the main symptoms. It is dynamic. The symptoms vary over time.* (Speckhard) Yes I agree, I know in the Chernobyl liquidators you studied, Nadya, that you didn't find the bodily arousal to scripts about the experience, yet we know that these people get very horrified when thinking about potential illnesses they may get in the future and for me this is unique to this type of trauma with high uncertainty about the injury that is yet to come and we see high arousal states with fears of the future – flash forwards versus flash backs if you will. I know in Russia you have pointed out many differences than how the west conceptualizes PTSD.

(McGurk) *I think we need to be careful about making changes to [how we define and measure] PTSD. I'm not sure you measured PTSD according to DSM criteria – you didn't use the PCL. I do agree there are problems with the way we're diagnosing it, especially for soldiers, because the standard responses may not be standard for soldiers. However, you didn't use standard criteria in your study.*

(Speckhard) Actually we did use standard criteria in terms of the items we used. We had everything in there – 5 items for every aspect of PTSD, but we did not use standardized measures per se.

(McGurk) *As far as measuring PTSD in a different way, it needs to be validated by comparing with a structured survey. Now it's looking at the symptoms.*

(Speckhard) I want to argue that the only way to diagnose PTSD is through the PCL. If you have the symptoms, you can assess it, this is done all the time by clinicians. We had good reasons for not using standardized measures and we still got at all the variables. We didn't want to alienate the subjects. Just because you have the PCL you may not be getting the right information. If you have a lot of instruments, your survey may not hang together and you may lose your subjects' participation.

(McGurk) *It's been used validated (PCL) in military and civilian populations. Just because it's a party line, doesn't mean it's a bad line.*

(Speckhard) No but if you lose your sample because they don't want to answer a survey that makes them feel that they are being clinically diagnosed you defeat your purpose as well.

*(Danielsen) It is interesting for a social anthropologist to be part of this discussion. How do you validate [these survey instruments]? How do you validate questionnaires for broad sample (age, gender)? All Americans, but that's a big continent. Using Hofstade [cultural factors or dimensions] doesn't fit; it was validated for different people. If you use this questionnaire, how do you interpret the answers? The way of coping with stress and using sex for fun would be different for Navy SEALs or what my grandmother would do in Northern Norway. The way of Navy SEALs would be diagnosed as pathological. I have a big question about validation and norming it to ensure you measure the important things instead of measuring things and then make them important. (Verleye) One of the goals of the study was to show the technology. You need to have a multi-cultural target group. If you want to apply an instrument, the question of norms is only one way to do it. You need to do a proper pre-test with the correct questions – to ensure if a question is asked one way, it can't be interpreted another way. Then collect a couple of hundred or thousand people for better statistics and look at profiles in the data. These are bottom up lessons, taking into advantage what you know. You can create a new questionnaire methodology toward a target group, that's a big and ambitious effort.*

*To what extent do the answers to the questions depend on the time of exposure to hazards? Servicemen change their functional state in phases. In two months, they have greater psychological disorders, then stabilization, and then in months six to eight [post-deployment], they overestimate their safety and then four months after exposure to dangerous events, we see increasing changes. How does the timing affect the results?*

*(Speckhard) That is a very good point. We measured at one time only while still in theatre. To measure as you say, the survey would have to be used longitudinally or with a large enough sample to look across at different points in time. This would give answers over time regarding what patterns we see and how does that relate to the symptoms you see. That is expensive and difficult.*

## Chapter 13 – DISCUSSION ON THE FUTURE

(Wientjes) We need to discuss what we want to do in the future and how this fits in the requirements of the Human Factor and Medicine Panel and fit that into a follow-on activity for HFM-140. I've had a number of talks over the last days. Vasily is very interested in the cultural aspects that we discussed over the last days and will be speaking with an expert in Kiev who could participate in this area. Tone has been talking about initiating work in this area. Can we coordinate these efforts so we're working in the same direction? I am thinking about the five-year-old recommendations from the Lisbon Workshop on suicide terrorism (some of you were there). This was a seminal event and we spent the last afternoon on the recommendations to provide to the Science and Technology organizations on the main topics to be investigated. They included: international coordination of efforts, statistical database on attacks, many databases are incomplete, methodology for data collection to maintain data, systematically mine trends, to determine what counts as an attack, dissemination of lessons learned and patterns/game theoretic modelling.

(Jongman) Since then, there is a large database at University of Maryland. In the Netherlands, there is a huge database on suicide terrorism.

(Wientjes) What is lacking is a multi-national coordinated effort and NATO can provide that. We need guidelines that are coordinated and standardized on additional info to ask from terrorist suspects, etc.

(Speckhard) We hope for a follow-on for the RTG 140 as well. Perhaps Valery could join us in that as we have him as a Russian member but he has not been able to come to the NATO RTG meetings.

(Wientjes) There are many interesting questions. In a defence related effort, we should be focused. We need to clearly define the deliverables and that's been lacking in HFM. The problem with this kind of work is that there are few experts in the defence community. Many of the defence institutes are lacking. We need to bring on independent experts, but then their funding is an issue... One thing is important before another effort is documenting the lessons learned and then getting the Nations to commit.

(Jongman) The Nations are not interested in psychological things; they are too focused on the hard issues (type of weapons, etc.).

(Wientjes) There is a genuine interest in NATO on the human aspect. All emphasize that the most important thing is exploring the human aspect.

(McGurk) If they care, an organization spends time and money on that. The US military cares about PTSD.

(Wientjes) If the Nations make a commitment, the national funding is there.

(Krasnov) I have a question about the organizational issues of the advisory panel (begun in 2002). For four years, there were no physical contacts, little activity. There have been many issues regarding social and psychological data – the reason may be that the range of the social and psycho issues is not sufficient for the council. I recommend we think about broadening the range of issues which can be brought to consultation – not only terrorism but also emergency/disaster response. We were talking about social and psychological consequences and now we understand that the state of people to a large extent determines their psychological and physiological health. We need to consider the medical aspects of those people directly related to psychological states of the people considered here. In our communication, we will conclude we need to broaden our topic and then improve and revitalize our collaboration.

(Wientjes) The NATO Russia Advisory Committee was disbanded by NATO in 2005 and turned into a virtual forum. I will propose making a stricter distinction between the military and civil applications of

## DISCUSSION ON THE FUTURE

---

this work. My organization is involved in the military side of the house. The Science Department is working in the civil area – environmental, civil response, security. I will speak to Fernando and convey your message to him. Could you write a one page summary for Fernando of what you propose? I'm sure he'll be interested in trying to revitalize the committee and broaden the scope. The Secretary General who made that decision is no longer there.

Thanks for an excellent meeting. The atmosphere is good, cooperative, good discussions and information exchange. It was great to be here. Thanks to all who supported.

(Krasnov) A special thanks to everyone for coming and to the Russian organizers and hosts and to Anne Speckhard for her work on the NATO side.

(Speckhard) Thank you everyone for your participation, your excellent presentations and discussion and your time spent in coming. And thank you so much Dr. Krasnov and Dr. Aleksanin for all your organizational work on the Russian side and to the Institute for hosting us. We had a very productive meeting and enjoyed very much your hospitality. Thanks also to the excellent translators in the booth and to Dr. Wientjes for all his support through NATO in making this collaboration possible. We hope to meet again soon.

## Annex A – AGENDA

### Social Sciences Support to Military Personnel Engaged in Counter-Insurgency and Counter-Terrorism Operations

Workshop June 18-20, 2009

Meeting Venue: St Petersburg, Russia

Institute of Emergency Medicine

#### **Thursday – June 18, 2009**

9:00 Welcome & Opening Remarks

9:30 Lessons from Afghanistan: Psycho-Social Preparation for Deployment, Support during Deployment and Post-Deployment Issues (PTSD and Rehabilitation) – Vasily Varus (UKR)

9:40 Discussion

10:00 Resilience in Veterans: Psychological Problems of Combatants Transitioning Back into Society – Sergei Aleksanin (RUS)

10:30 Prevention of Suicide and Stress Disorders in Emergency Situations – Vladislav Shamrey (RUS)

11:00 Discussion

11:30 Coffee Break

12:00 Discussion

12:30 Lunch

2:00 Building Resilience in Civilian Populations – Valery Krasnov (RUS)

2:30 Why Cultural Awareness is Vital to Counter-Insurgency (COIN) Campaigns – Tone Danielsen (NOR)

3:00 Coffee

3:30 Discussion

#### **Friday – June 19, 2009**

9:00 Empirical Study of the Terrorist Threat: Lessons for Resilience from Afghanistan – Nadezhda Tarabrina (RUS)

10:00 Activities of the NATO Research and Technology Agency – Cornelius Wientjes (NATO)

10:30 Coffee

## ANNEX A – AGENDA

---

11:00 Battlemind Resilience Training Overview – Denis McGurk (USA)

12:30 Discussion

1:00 Lunch

2:00 Deradicalization/Disengagement Strategies: Challenging Terrorist Ideologies and Militant Jihadis – Anne Speckhard (USA)

3:00 Resilience and Radicalization – Albert Jongman (NLD)

4:00 Discussion

4:00 Cultural Program

### **Saturday – June 20, 2009**

9:30 Resilience in Military and Diplomatic Personnel Engaged in Counter-Insurgency and Counter-Terrorism Operations – Gino Verleye (BEL) and Anne Speckhard (USA)

10:00 Discussion

10:30 Discussion on the Future with Some Closing Remarks on NATO-Russia: The Common Ground for Collaborating Together – Anne Speckhard (USA) and Valery Krasnov (RUS)

11:30 Coffee

12:00 Response to the Two Days – Laurie Fenstermacher (USA)

1:00 Lunch

2:30 Cultural Program

REPORT DOCUMENTATION PAGE													
1. Recipient's Reference	2. Originator's References	3. Further Reference	4. Security Classification of Document										
	RTO-MP-HFM-172 AC/323(HFM-172)TP/405	ISBN 978-92-837-0151-4	UNCLASSIFIED/ UNLIMITED										
5. Originator	Research and Technology Organisation North Atlantic Treaty Organisation BP 25, F-92201 Neuilly-sur-Seine Cedex, France												
6. Title	Social Sciences Support to Military Personnel Engaged in Counter-Insurgency and Counter-Terrorism Operations												
7. Presented at/Sponsored by	Final Report of the NATO-Russia Human Factors and Medicine Research Task Group 172.												
8. Author(s)/Editor(s)	Multiple		9. Date November 2011										
10. Author's/Editor's Address	Multiple		11. Pages 66										
12. Distribution Statement	There are no restrictions on the distribution of this document. Information about the availability of this and other RTO unclassified publications is given on the back cover.												
13. Keywords/Descriptors	<table> <tbody> <tr> <td>Battleground training</td> <td>Disengagement</td> </tr> <tr> <td>Counter-insurgency</td> <td>PTSD</td> </tr> <tr> <td>Counter-terrorism</td> <td>Resilience</td> </tr> <tr> <td>Cultural awareness</td> <td>Terrorism</td> </tr> <tr> <td>Deradicalization</td> <td></td> </tr> </tbody> </table>			Battleground training	Disengagement	Counter-insurgency	PTSD	Counter-terrorism	Resilience	Cultural awareness	Terrorism	Deradicalization	
Battleground training	Disengagement												
Counter-insurgency	PTSD												
Counter-terrorism	Resilience												
Cultural awareness	Terrorism												
Deradicalization													
14. Abstract	<p>“Social Sciences Support to Military Personnel Engaged in Counter-Insurgency and Counter-Terrorism Operations” is a report based on the NATO-Russia Human Factors and Medicine Research Task Group (172) Workshop held in St Petersburg, Russia, June 18-20, 2009. The group consisted of NATO member representatives meeting with their Russian and Ukrainian counterparts and was an extension of previous NATO-Russia activities held in Belgium at NATO headquarters, an Advanced Research Workshop held in Portugal, and the NATO-Russia Advisory Group, all occurring since the historic agreement (following 9-11) between NATO and Russia to collaborate on counter-terrorism issues. This report includes findings and models on civilian, diplomatic and military resilience in those exposed to terrorism and counter-insurgency operations. Discussions focus on adequate preparation for combat, prevention of suicide, psychological mal-adaptations and post-traumatic stress disorder in combat veterans focusing on pre-deployment, during and post-deployment as well as the need for cultural awareness programs. Deradicalization and disengagement strategies for imprisoned terrorists are also discussed. Participants share lessons learned by Russia in Chechnya and Afghanistan and by NATO Nations in Iraq and Afghanistan. Support for the continued and future work between NATO and Russia from the NATO Research and Technology Organisation is also discussed.</p>												





BP 25  
F-92201 NEUILLY-SUR-SEINE CEDEX • FRANCE  
Télécopie 0(1)55.61.22.99 • E-mail [mailbox@rta.nato.int](mailto:mailbox@rta.nato.int)



**DIFFUSION DES PUBLICATIONS**  
**RTO NON CLASSIFIEES**

Les publications de l'AGARD et de la RTO peuvent parfois être obtenues auprès des centres nationaux de distribution indiqués ci-dessous. Si vous souhaitez recevoir toutes les publications de la RTO, ou simplement celles qui concernent certains Panels, vous pouvez demander d'être inclus soit à titre personnel, soit au nom de votre organisation, sur la liste d'envoi.

Les publications de la RTO et de l'AGARD sont également en vente auprès des agences de vente indiquées ci-dessous.

Les demandes de documents RTO ou AGARD doivent comporter la dénomination « RTO » ou « AGARD » selon le cas, suivi du numéro de série. Des informations analogues, telles que le titre et la date de publication sont souhaitables.

Si vous souhaitez recevoir une notification électronique de la disponibilité des rapports de la RTO au fur et à mesure de leur publication, vous pouvez consulter notre site Web ([www.rto.nato.int](http://www.rto.nato.int)) et vous abonner à ce service.

**CENTRES DE DIFFUSION NATIONAUX**

**ALLEMAGNE**

Streitkräfteamt / Abteilung III  
Fachinformationszentrum der Bundeswehr (FIZBw)  
Gorch-Fock-Straße 7, D-53229 Bonn

**BELGIQUE**

Royal High Institute for Defence – KHID/IRSD/RHID  
Management of Scientific & Technological Research  
for Defence, National RTO Coordinator  
Royal Military Academy – Campus Renaissance  
Renaissancelaan 30, 1000 Bruxelles

**CANADA**

DSIGRD2 – Bibliothécaire des ressources du savoir  
R et D pour la défense Canada  
Ministère de la Défense nationale  
305, rue Rideau, 9<sup>e</sup> étage  
Ottawa, Ontario K1A 0K2

**DANEMARK**

Danish Acquisition and Logistics Organization  
(DALO)  
Lautrupbjerg 1-5, 2750 Ballerup

**ESPAGNE**

SDG TECIN / DGAM  
C/ Arturo Soria 289  
Madrid 28033

**ESTONIE**

Estonian Ministry of Defence  
Estonian National Coordinator for NATO RTO  
Sakala 1, Tallinn 15094

**ETATS-UNIS**

NASA Center for AeroSpace Information (CASI)  
7115 Standard Drive  
Hanover, MD 21076-1320

**FRANCE**

O.N.E.R.A. (ISP)  
29, Avenue de la Division Leclerc  
BP 72, 92322 Châtillon Cedex

**NASA Center for AeroSpace**

**Information (CASI)**  
7115 Standard Drive  
Hanover, MD 21076-1320  
ETATS-UNIS

Les demandes de documents RTO ou AGARD doivent comporter la dénomination « RTO » ou « AGARD » selon le cas, suivie du numéro de série (par exemple AGARD-AG-315). Des informations analogues, telles que le titre et la date de publication sont souhaitables. Des références bibliographiques complètes ainsi que des résumés des publications RTO et AGARD figurent dans les journaux suivants :

**Scientific and Technical Aerospace Reports (STAR)**

STAR peut être consulté en ligne au localisateur de ressources uniformes (URL) suivant: <http://www.sti.nasa.gov/Pubs/star/Star.html>  
STAR est édité par CASI dans le cadre du programme NASA d'information scientifique et technique (STI)  
STI Program Office, MS 157A  
NASA Langley Research Center  
Hampton, Virginia 23681-0001  
ETATS-UNIS

**GRECE (Correspondant)**

Defence Industry & Research General  
Directorate, Research Directorate  
Fakinos Base Camp, S.T.G. 1020  
Holargos, Athens

**REPUBLIQUE TCHEQUE**

LOM PRAHA s. p.  
o. z. VTÚLaPVO  
Mladoboleslavská 944  
PO Box 18  
197 21 Praha 9

**HONGRIE**

Hungarian Ministry of Defence  
Development and Logistics Agency  
P.O.B. 25, H-1885 Budapest

**ITALIE**

General Secretariat of Defence and  
National Armaments Directorate  
5<sup>th</sup> Department – Technological  
Research  
Via XX Settembre 123, 00187 Roma

**LUXEMBOURG**

*Voir Belgique*

**NORVEGE**

Norwegian Defence Research  
Establishment, Attn: Biblioteket  
P.O. Box 25  
NO-2007 Kjeller

**PAYS-BAS**

Royal Netherlands Military  
Academy Library  
P.O. Box 90.002  
4800 PA Breda

**POLOGNE**

Centralna Biblioteka Wojskowa  
ul. Ostrobramska 109  
04-041 Warszawa

**PORTUGAL**

Estado Maior da Força Aérea  
SDFA – Centro de Documentação  
Alfragide, P-2720 Amadora

**SLOVENIE**

Ministry of Defence

Central Registry for EU and

NATO

Vojkova 55

1000 Ljubljana

**TURQUIE**

Milli Savunma Bakanlığı (MSB)  
ARGE ve Teknoloji Dairesi  
Başkanlığı  
06650 Bakanlıklar  
Ankara

**AGENCES DE VENTE**

**The British Library Document**

**Supply Centre**  
Boston Spa, Wetherby  
West Yorkshire LS23 7BQ  
ROYAUME-UNI

**Canada Institute for Scientific and**

**Technical Information (CISTI)**  
National Research Council Acquisitions  
Montreal Road, Building M-55  
Ottawa K1A 0S2, CANADA

**Government Reports Announcements & Index (GRA&I)**

publié par le National Technical Information Service  
Springfield  
Virginia 2216  
ETATS-UNIS  
(accessible également en mode interactif dans la base de données bibliographiques en ligne du NTIS, et sur CD-ROM)



BP 25

F-92201 NEUILLY-SUR-SEINE CEDEX • FRANCE  
Télécopie 0(1)55.61.22.99 • E-mail [mailbox@rta.nato.int](mailto:mailbox@rta.nato.int)



## DISTRIBUTION OF UNCLASSIFIED RTO PUBLICATIONS

AGARD & RTO publications are sometimes available from the National Distribution Centres listed below. If you wish to receive all RTO reports, or just those relating to one or more specific RTO Panels, they may be willing to include you (or your Organisation) in their distribution.

RTO and AGARD reports may also be purchased from the Sales Agencies listed below.

Requests for RTO or AGARD documents should include the word 'RTO' or 'AGARD', as appropriate, followed by the serial number. Collateral information such as title and publication date is desirable.

If you wish to receive electronic notification of RTO reports as they are published, please visit our website ([www.rto.nato.int](http://www.rto.nato.int)) from where you can register for this service.

### NATIONAL DISTRIBUTION CENTRES

#### BELGIUM

Royal High Institute for Defence – KHID/IRSD/RHID  
Management of Scientific & Technological Research  
for Defence, National RTO Coordinator  
Royal Military Academy – Campus Renaissance  
Renaissancelaan 30  
1000 Brussels

#### CANADA

DRDKIM2 – Knowledge Resources Librarian  
Defence R&D Canada  
Department of National Defence  
305 Rideau Street, 9<sup>th</sup> Floor  
Ottawa, Ontario K1A 0K2

#### CZECH REPUBLIC

LOM PRAHA s. p.  
o. z. VTÚLaPVO  
Mladoboleslavská 944  
PO Box 18  
197 21 Praha 9

#### DENMARK

Danish Acquisition and Logistics Organization  
(DALO)  
Lautrupbjerg 1-5  
2750 Ballerup

#### ESTONIA

Estonian Ministry of Defence  
Estonian National Coordinator for NATO RTO  
Sakala 1, Tallinn 15094

#### FRANCE

O.N.E.R.A. (ISP)  
29, Avenue de la Division Leclerc  
BP 72, 92322 Châtillon Cedex

#### GERMANY

Streitkräfteamt / Abteilung III  
Fachinformationszentrum der Bundeswehr (FIZBw)  
Gorch-Fock-Straße 7  
D-53229 Bonn

#### NASA Center for AeroSpace Information (CASI)

7115 Standard Drive  
Hanover, MD 21076-1320  
UNITED STATES

#### GREECE (Point of Contact)

Defence Industry & Research General  
Directorate, Research Directorate  
Fakinos Base Camp, S.T.G. 1020  
Holargos, Athens

#### HUNGARY

Hungarian Ministry of Defence  
Development and Logistics Agency  
P.O.B. 25, H-1885 Budapest

#### ITALY

General Secretariat of Defence and  
National Armaments Directorate  
5<sup>th</sup> Department – Technological  
Research  
Via XX Settembre 123, 00187 Roma

#### LUXEMBOURG

See Belgium

#### NETHERLANDS

Royal Netherlands Military  
Academy Library  
P.O. Box 90.002  
4800 PA Breda

#### NORWAY

Norwegian Defence Research  
Establishment, Attn: Biblioteket  
P.O. Box 25  
NO-2007 Kjeller

#### POLAND

Centralna Biblioteka Wojskowa  
ul. Ostrobramska 109  
04-041 Warszawa

#### SALES AGENCIES

#### The British Library Document Supply Centre

Boston Spa, Wetherby  
West Yorkshire LS23 7BQ  
UNITED KINGDOM

#### ROMANIA

Romanian National Distribution  
Centre  
Armaments Department  
9-11, Drumul Taberei Street  
Sector 6, 061353, Bucharest

#### SLOVAKIA

Akadémia ozbrojených sil gen.  
M.R. Štefánika, Distribučné a  
informačné stredisko RTO  
Demänová 393, Liptovský Mikuláš 6  
031 06

#### SLOVENIA

Ministry of Defence  
Central Registry for EU & NATO  
Vojkova 55  
1000 Ljubljana

#### SPAIN

SDG TECIN / DGAM  
C/ Arturo Soria 289  
Madrid 28033

#### TURKEY

Milli Savunma Bakanlığı (MSB)  
ARGE ve Teknoloji Dairesi  
Başkanlığı  
06650 Bakanlıklar – Ankara

#### UNITED KINGDOM

Dstl Knowledge and Information  
Services  
Building 247  
Porton Down  
Salisbury SP4 0JQ

#### UNITED STATES

NASA Center for AeroSpace  
Information (CASI)  
7115 Standard Drive  
Hanover, MD 21076-1320

#### Canada Institute for Scientific and Technical Information (CISTI)

National Research Council Acquisitions  
Montreal Road, Building M-55  
Ottawa K1A 0S2, CANADA

Requests for RTO or AGARD documents should include the word 'RTO' or 'AGARD', as appropriate, followed by the serial number (for example AGARD-AG-315). Collateral information such as title and publication date is desirable. Full bibliographical references and abstracts of RTO and AGARD publications are given in the following journals:

#### Scientific and Technical Aerospace Reports (STAR)

STAR is available on-line at the following uniform resource locator: <http://www.sti.nasa.gov/Pubs/star/Star.html>  
STAR is published by CASI for the NASA Scientific and Technical Information (STI) Program  
STI Program Office, MS 157A  
NASA Langley Research Center  
Hampton, Virginia 23681-0001  
UNITED STATES

#### Government Reports Announcements & Index (GRA&I)

published by the National Technical Information Service  
Springfield  
Virginia 2216  
UNITED STATES  
(also available online in the NTIS Bibliographic Database or on CD-ROM)